



*The London
Mathematical
Society*



**PROPOSAL FOR A NEW UNIFIED MATHEMATICAL SOCIETY:
A Consultation Document**

A joint report of
the Institute of Mathematics and its Applications and
the London Mathematical Society

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August 2008

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Prologue

In June 2008 the Joint Planning Group of the Institute of Mathematics and its Applications and the London Mathematical Society brought eight years of discussions about a possible merger of the two societies to a firm proposal. The group was charged to spell out in detail the structure of and rationale for the creation of a New Society, and this Report does exactly that.

The Councils of LMS and IMA consider that the prospect of a merger provides the two societies with a unique opportunity for growth. Many mathematicians, including prominent members of both Councils, are members of the two societies already and are convinced that we share a common culture. The transformation of the organizational structure of the LMS since the acquisition of De Morgan House in 1998 has not resulted in the loss of its ethos, and supports the belief that the culture of a society depends on its members, rather than the other way around. We consider that a New Society whose structure follows that described in the Report would preserve the best of both of the current societies and provide real opportunities for increasing the scope, scale and relevance of all activities. The successes over the past ten years of the Council for the Mathematical Sciences, the Advisory Committee on Mathematics Education, the Isaac Newton Institute and the International Centre for Mathematical Sciences, to name a few examples, are signs of the increased integration of the mathematical community that has persuaded the two Councils that the time is now ripe to grasp the unique opportunity that this Report presents.

There are many possibilities for growth in the New Society. The most obvious one is in the membership. Currently this is very small by comparison with other learned and professional societies in the UK, and we need to create a New Society which extends its appeal far more to mathematicians of all generations, both young and old, and from a wide diversity of backgrounds and disciplines. Having a unified society will make this much easier, because there will be a single national society and we will take a variety of steps to make it seem natural and attractive to join it. Mathematicians will not have to face the dilemma of thinking about which society has the more appropriate aims and activities. We believe that a combined society has a much better chance of substantial growth than do two separate ones; the Royal Society of Chemistry and Institute of Physics indicate what level of membership success might be achievable with substantial effort.

A second and vital issue is to increase our influence on Government on all matters relating to mathematical research and teaching, from school level upwards. The last few decades have seen steadily increasing direction by a succession of Governments, and we are convinced that we will have more influence on their decisions, whether they be about syllabuses or funding, if we present a single face to them. The importance of this issue is illustrated by the fact that recent reductions in the EPSRC Mathematical Sciences Programme funding exceeds the total sum that we can give in direct grants from our own funds by an order of magnitude. We are also aware that other societies are putting very substantial efforts into campaigning on behalf of their disciplines. A variety of exchanges with people from other communities has convinced us that having a title that makes it clear that we represent British mathematics as a whole is by itself a significant issue.

The structure of the New Society is important, and most of the Report is an attempt to spell out how the New Society would function. Even if one accepts the principle of a merger, the framework needs to be right. It must be sufficiently detailed to convince members that the New Society will not lose valuable aspects of the current societies. But it must also retain flexibility – if some of the details do not work out as anticipated, it must allow for the possibility of change. The writers of the Report believe that we have achieved these goals, and are now submitting it for the scrutiny of our members. The process of negotiation over the contents of the Report has been remarkably harmonious and has confirmed the beliefs of its authors that the task set by our two Councils was timely. The Report contains provisions designed to protect the special interests of each

society where the two differ. Almost all of these differences arise from the increased diversity of the New Society, which is organized into four constituencies in recognition of these.

The four constituencies relate to Learned Activities, Professional Activities, Education and External Relations, each of which will have its own Vice-President. An entire chapter of the Report is devoted to each of the constituencies. Members may identify closely with one or more of these, and their structure is intended to assure everyone – academics, teachers and other educationalists, and those in industry and commerce – that their own interests will be fully protected as integral and permanent parts of the New Society. The fourth constituency, External Relations, is not of the same type as the others. It will incorporate the successful Mathematics Promotion Unit and will also need to develop strong links with the other three constituencies. It will play a key role in the New Society, and we will not be afraid to adjust its procedures after the merger if this seems advisable. Publishing will also be of vital importance to the New Society, but it is not a constituency in its own right because it must be closely integrated with the society's other learned activities. It is expected that publishing will continue to provide valuable revenue to support the activities of the New Society, but full regard will be maintained to the high standards of the journals and to expanding their range. Once again we believe that we will have better opportunities in this respect as a combined society.

Learned societies in the UK have a wide variety of attitudes towards the concept of Fellowship. All members of the Royal Society and Royal Statistical Society are Fellows, but none of those in the LMS are. The IMA has both Members and Fellows. The Report adopts the practice of the IMA and many other societies in which Fellowship is a recognition of academic or professional standing that members may find useful, particularly in industry and with regard to consultancy work. We acknowledge that for many members of the IMA this is an important issue, but also that for many mathematicians in the academic sector it will not be relevant. Fellowship will not confer any greater role or status in the business of the New Society.

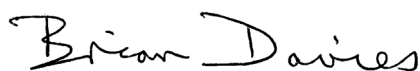
The two societies already recognise and reward personal distinction by awarding prizes and medals, some jointly. It is intended that these will be combined into a single list of awards in the New Society and possibly extended over the course of time.

The two Councils have discussed all aspects of the Report in detail, and consider that the proposals represent a remarkable achievement. We hope that all members will read the first chapter in detail, because it presents the philosophical case for the merger, describes the framework for the later more detailed chapters, and sets out the various steps necessary for the creation of the New Society. The appendices also contain valuable material, including a glossary of the many acronyms used.

The decision to be taken is perhaps the most important in the history of either society, and we, on behalf of our respective Councils, have no hesitation in commending the Report to our members. We look forward to discussing the issues associated with the merger as we travel around the country during the consultation period towards the end of the year, and to receiving feedback from members.



Professor I. David Abrahams
President, IMA



Professor E. Brian Davies
President, LMS

1: Introduction

1.1 Background

In recent years the Institute of Mathematics and its Applications (IMA¹) and the London Mathematical Society (LMS) have worked increasingly closely together in order to deliver improved and enhanced support for the mathematics community and to speak for mathematics with a unified voice. In April 2005 the two Councils issued a report of a joint group looking at the future frameworks for collaboration between the two bodies.

The report (*Frameworks Study Initiative: Looking at the future options for the IMA and LMS*) laid out three scenarios – retention of the current arrangements, structured collaboration and a merger of the two bodies – and was discussed widely by the memberships. The responses were diverse but there was a clear majority in favour of looking at the practicalities of a merger and this led to the Councils in March 2006 establishing a Joint Planning Group to prepare a document describing the vision, structure, finances and organization of a single unified society. The remit and membership of the Joint Planning Group is given in Appendix A. A more comprehensive background to the discussions between the two societies is available on their web sites.

The Joint Planning Group produced this report for the Councils of the two societies, which have accepted and endorsed it. The terms 'we' and 'us' in the report referred to the Group and its members but have now been accepted as the views of the two Councils.

The report is written to lay out the philosophical and practical case *for* a single unified society based on the two Councils' agreement that a single society offered real advantages. We term this body the 'New Society'. The report aims to present an honest and objective assessment of that proposal. It has attempted (see Appendix C) to take the comments and criticisms raised in the earlier 2005 consultation and to show how they might be addressed in the New Society; however, it is written from the assumption of creating the New Society and thus is worded in the terms of what a new unified society *will* do.

1.2 The vision and mission of a new single society.

Our vision for a new unified society stems from a belief that is shared by the members of both societies, that mathematics is fundamental to human progress and to our understanding of the world in which we live. It has its own intrinsic value: mathematics is an achievement of human civilisation second to none. It is central to modern society and underpins science, technology and the economy.

The new unified society will exist to support the advancement of mathematical knowledge and to promote and enhance mathematical culture in the United Kingdom and elsewhere, for the public good.

A single, unified society will bring together the mathematics community and provide an opportunity to enlarge the scope and number of members. It will provide a body supporting mathematicians across all sectors and areas of work; it will accommodate those who currently find neither society adequate or appropriate to their needs; it will embrace, rather than segregate, the community. Compared with other subject societies, the two mathematics societies currently attract a relatively small proportion of the community, and a single society will be able to set itself the challenge of drawing more mathematicians into membership. There is considerable scope for drawing into membership those who retain their love of mathematics although their employment may have moved them into other fields, as happens in physics and chemistry. The eventual size of the New Society will be substantially more than the sum of the two – the New Society should aim to double in membership in the first few years. An enlarged membership, in turn, will provide not just a more financially secure body, but also a scale that will enable larger schemes of grants and support, and activities aimed at wider geographical and subject groupings.

A single society for mathematics will be able to speak for this wider community of mathematicians with confidence and strength, providing a forum within which differences can be discussed and resolved. In international relations a single mathematics society in the UK will bring together the UK's participation in non-governmental bodies, such as the International Mathematical Union (IMU) and International Council for Industrial and Applied Mathematics (ICIAM), and ensure that the UK mathematical community can take part in and draw on the activities of these bodies as part of the worldwide community of mathematicians.

¹ This report contains a large number of acronyms and references to other organizations. There is a list of acronyms, and where relevant a brief description, in Appendix B.

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We have identified five primary objectives of a New Society that encapsulate and enhance the objectives of the existing two societies.

1. To promote, support and advance mathematical research and the applications of mathematics

The New Society will seek ways to encourage and support the advancement and application of all areas of mathematical knowledge both nationally and internationally. These will include the creation and dissemination of mathematical knowledge through, for instance, publishing, the organization and support for mathematical dialogue through meetings, workshops, conferences and the internet, and the awarding of grants for the support of mathematical activities.

2. To maintain and uphold the standards of qualification, competence and conduct of professional mathematicians in the United Kingdom

The New Society will be the awarding authority that sets and maintains the requirements for the Chartered Mathematician designation for professional mathematicians. It will set and maintain the requirements for Initial and Continuing Professional Development. It will hold a licence from the Science Council to award the Chartered Scientist designation. The right to award the Chartered Mathematics Teacher designation will be part of the new Charter and By-laws of the New Society; awards of this new professional designation will be made jointly with kindred societies.

3. To support mathematical education in schools, colleges and universities

The New Society will promote the importance of a good mathematical education for all members of society, the importance of a solid understanding of mathematics for a wide range of career choices, and the importance of a strong mathematically trained core in research, application and teaching of mathematics. It will provide both policy advice and practical activities to further these aims.

4. To promote a public appreciation of mathematics and an understanding of its scientific, economic, and social benefits

The New Society will promote a much-needed wider appreciation and recognition (by government and others) of the role and importance of mathematics to the economic, intellectual and social well-being of individuals and the nation. The New Society will represent the views of the UK mathematical community nationally and internationally. It will inform and influence policy-makers, opinion-formers and instruments of government, contribute to public debate on issues related to mathematics, and encourage public and private bodies to support mathematical research.

5. To engage the Society's members in the furtherance of its work

The membership of the New Society will be the core on which its expertise is based and will be its primary resource for fulfilling its aims. The Council of the New Society will involve the membership in determining the strategic plans and priorities for the Society. The Council will manage the Society's resources efficiently, economically and effectively, and will seek ways to advance its aims now and in the future.

1.3 The benefits of a single, unified society

In the report of the Frameworks Study Initiative, it said of this option:

Viewed from the broadest perspective, the formation of a single body incorporating the work of both the IMA and the LMS would have some obvious advantages. Not least, a merged society should be in a stronger position to speak clearly for mathematics, and to widen the range of its revenue-generating activities.

There would be improvements in terms of operational efficiency, which would permit the combined resources to be used to better effect in pursuit of our common charitable objectives. By avoiding unnecessary duplication of effort, the combined secretariat could be used more effectively, which would allow the work of the combined society to expand accordingly. A combined staff, running one, not two, organizations, would provide opportunities for balancing loads, combining activity support, and providing the flexibility that neither administration can currently offer. Greater resilience could be achieved by having key roles shared between senior and junior staff. It is likely that the current complement of staff would be required for the foreseeable future but that the various roles would evolve and eventually be redefined.

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A single organization would enable issues to be decided by a wider range of directly-elected representatives and should lead to a strengthening of the links between mathematics and applications. It would also be easier to fund and co-ordinate a single office for external relations and public communication, thereby providing a more effective voice for mathematics.

Our detailed examination of the proposals reinforces all these points. We summarise the benefits in the following paragraphs and expand on these, and the way in which the New Society will operate to deliver them, in subsequent chapters.

A. Academic benefits

- We regard it as self-evident that mathematics is a single subject and that increasing the communication between all mathematicians is a good thing. There are many mathematicians who are not members of the LMS or the IMA, because they do not feel that their constituencies are properly represented in either of the present societies. A merger would create a larger society, free of perceived shortcomings of the two present societies, that could expand to cover all fields, thus becoming the recognized focus of a high proportion of the total mathematical community.
- The organization of joint meetings in areas which overlap the two societies would be facilitated because applicants would not have to send different applications for partial support to each of them.
- Some research that is currently regarded as falling between two stools, for example differential equations, would no longer appear to do so. This could help to strengthen fields that are currently weak by international standards.

B. Benefits to industry and the research base

- Modern commerce and industry depend on the contributions of mathematics. From the design and modelling of aircraft wings, through network theory underlying the internet, to the modelling of complex financial systems, modern mathematics is a crucial element. A single society, with members from the academic researcher to the industrialist, will facilitate interactions and a relationship that feeds, stimulates and enhances all sectors.

C. Benefits to education

- The two societies usually have common views on issues relating to school syllabuses, examinations and the promotion of mathematics, and it would be simpler to make the decisions together rather than separately.
- The New Society's academic and professional activities will offer appropriate support and development to teachers and lecturers in schools, colleges and universities, and encourage coherence across these different groups of teachers of mathematics.
- A single learned and professional body for mathematics will parallel similar developments in the mathematics education world and provide a better interface between the two.
- An active set of members' branches will offer support to teachers, pupils and schools, and promote public interest in mathematics.

D. Influence and external relations benefits

- The LMS and IMA regularly have to promote mathematics to governmental bodies dealing with research funding and quality assessment. Their relatively low membership numbers reduce their influence, as does the fact that the Officers of each cannot speak on behalf of the other. The Institute of Physics and Royal Society of Chemistry are far larger and have proportionately greater influence. In one case the LMS has been excluded from full membership of a body as a result of its small size.
- Each external policy issue that is to be decided has to be discussed separately in each society and then coordinated in the Council for the Mathematical Sciences (CMS). This is in the best case – in others time-consuming iterations are needed to come to a common point of view.
- The CMS is a valuable organization in the current situation, but it has a unique role rather different from that of the subject societies (see Chapter 7). CMS is exclusively a policy body engaging with government, its agencies and other stakeholders, to provide an authoritative and objective body able to speak on the role of the mathematical sciences in UK higher education, research, business, industry and the public sector. Like the Advisory Committee on Mathematical Education (ACME) (which it complements) it needs to remain independent from the particular interests of individual constituent societies or their members if it is to be accepted as an impartial partner by those with whom it negotiates.

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- On the other hand, as a partner in CMS the New Society, as *the* body of the mathematical community, will be able to exert its influence for mathematics, speaking with the authority of a wider mathematical community.
- It is not always easy to represent the UK position on various matters to international bodies, when there does not exist a single UK mathematics society with which those bodies can engage.

E. Administrative benefits

- At present each society constitutes a small business, with all the management and administration required nowadays to run such a body – meeting legislative and fiscal requirements, employer responsibilities and ever-increasing and detailed employment law, and dealing with payroll, pensions, etc. In many cases the time and cost is quite independent of the size of the organization, and these aggregate costs will halve; in others there will still be significant savings.
- A single organization will not require duplication of many facilities and can take advantage of administrative software that becomes economical for organizations larger than either society is at present.
- A single Council and integrated committees (i.e. fewer in aggregate) will save members' time, and staff and direct costs. Several committees which currently provide coordination between the two societies at strategic or activity level will not be needed. There will be an associated saving in paper, postage and staff time.
- Savings on staff time by removing duplicated tasks or integrating activities will enable staff to be used to support and deliver the enhanced range of activities that the New Society will wish to operate.

F. Financial benefits

- A larger organization has greater purchasing power for goods and services, from office paper and printing contracts to building works and hiring rooms and facilities for conferences.
- The larger turnover will provide a more stable and flexible financial organization able to plan forward with assurance and be more ambitious in its strategy.

1.4 Public benefit

The New Society will be a charity. While there might otherwise be a case for some other status it is clear that were the New Society to go down that route then it could not keep the assets of the existing societies – the Charity Commission would place them in the hands of new trustees, rather than allow them to be transferred to a new non-charitable organization.

It follows that the constitution and mission of the New Society must be designed to satisfy the conditions set out in recent charity legislation, in particular that it must (a) have a charitable purpose and (b) provide public benefit. Indeed, not only must the New Society be designed to meet the new charity legislation, but the existing societies will need a comprehensive reassessment of activities to ensure that they comply with current legislation. The 'charitable purposes' criterion is relatively straightforward; the New Society will fall under the charitable purpose "the advancement of the arts, culture, heritage or science" and partially "the advancement of education".

The second, 'public benefit' criterion, is less simple. A charity cannot be political and must not do harm. 'Benefit' means the overall, demonstrated benefit to the public. It is not simply a question of showing that some benefit may result. The Charity Commission has issued guidance on public benefit, in which it sets out the following principles:

Principle 1: There must be an identifiable benefit or benefits

- *It must be clear what the benefits are*
- *The benefits must be related to the aims*
- *Benefits must be balanced against any detriment or harm*

Principle 2: Benefit must be to the public, or section of the public

- *The beneficiaries must be appropriate to the aims*
- *Where benefit is to a section of the public, the opportunity to benefit must not be unreasonably restricted: (a) by geographical or other restrictions; or (b) by ability to pay any fees charged*
- *People in poverty must not be excluded from the opportunity to benefit*
- *Any private benefits must be incidental*

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In developing the plans for the New Society in this report we gave attention to these matters. There is no doubt that overall the net public benefit of the New Society's activities will be considerable. In Appendix D we have analysed some of the benefits and beneficiaries from the work of the New Society.

The new emphasis on public benefit in charity legislation will require the New Society, and also the existing societies, to give attention to two particular aspects.

- The balance of 'public benefit' versus 'private benefit'. Private benefits must directly contribute towards achieving the charity's purposes or be incidental to carrying out those purposes. The level of benefits that members receive over and above the benefits that are available to non-members, and the costs of providing member benefits, need to be carefully balanced.
- Access to benefits by those on low incomes. In the main, membership and activities are likely to be reasonably priced and concessions can be made available. Attention will be needed to ensure that people on low incomes are able to benefit, while at the same time protecting income streams (e.g. journal subscriptions) that support other charitable activities.

1.5 What is the alternative to a single society?

At one level the alternative is very simple – two societies will continue. The implications of that are less obvious. The two societies could, it might be argued, carry on much as they are now. But will they? Can they?

Both societies have developed significantly over the past decade, reflecting the pressures from the outside world, the needs of the community and the wishes of their members. Pressures on honorary officers have grown and it is no longer possible for either society to be run as it was 15 years ago. The current trend to collaboration does not achieve all the benefits of a single, merged society but carries additional overheads. On the other hand, a move towards separatism in the two societies would be damaging to mathematics, especially in policy terms. At a financial level, there is a danger that costs will rise over time, and both societies will be able to achieve less with their resources. These points are explored further in Appendix E.

Strategically and financially, the 'status quo' is not a realistic option.

1.6 The process of creating a new single society

The next steps can be split into a number of stages, each predicated on a decision whether or not to proceed.

Stage 1: Following the acceptance by the Councils in June/July 2008 of the final report of the Joint Planning Group and their agreement to recommend the proposal for a New Society to the membership

- This report is circulated to all members of the two societies to inform and to raise debate on the issues. A series of regional meetings is held and mechanisms established for members to raise issues, question aspects of the proposals and feed back their opinions.
- Interim responses are sought in time for the Councils' meetings in November 2008.
- The staff members of both societies are kept informed of the Councils' decisions and the ongoing consultation; they are invited to comment on the proposals as well.
- The Officers and Executive Secretaries start to prepare draft documents – a prototype Charter, By-laws and Regulations, more detailed investigations into the two societies' financial and accounting differences, possible administrative structures, staff terms and conditions, etc.

Stage 2: The Councils in November receive the interim feedback from the members' consultations and agree to ballot the membership on a decision to proceed to establish the New Society

- Ballot papers are prepared and sent to all members of the two societies seeking a decision on whether or not the member wishes the society to proceed to a merger, with such effect on the existing societies as is necessary.
- In order to maximise the numbers balloting, the possibility of using electronic balloting as well as postal balloting is considered.
- Ballots are returned by a defined date and counted.
- The ballot indicates the possible names for the New Society but does not seek a decision from members at this stage

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Stage 3: The ballot authorises the two Councils to go ahead

- Each society convenes the Extraordinary Meeting(s) needed in order to approve the creation of a new society and the changes or winding up of the existing societies' Charters.
- A ballot is undertaken seeking members' views about the name of the New Society (see below).

Stage 4: When both societies have satisfied the terms of their Charters to enable the creation of the New Society

- Approaches are made to the Privy Council and Charity Commission to obtain a Charter for the New Society.
- Staff members are formally informed that the merger is planned to go ahead, of their legal rights as employees, and of the consultation process that will be used.
- After the staff consultation the proposed administrative structure is decided and approved by the Councils.

Stage 5: When the new Charter has been approved, on a defined date the New Society will have a legal existence and starts to take over the roles of the two societies.

- Establishment of the initial Council of the New Society and appointments to its committees.
- Transfer of assets.
- Appointment of staff with the New Society as employer from a defined date (but with continuity of employment).
- At an agreed date, all matters will be transferred to the New Society, its Council, committees and staff.

This programme is shown in the chart on page 11.

This report does not address the name of the New Society. The Joint Planning Group chose not to do so but to concentrate on the issue of defining the aims, structure and business of the New Society. The name, while important, is not a crucial element of defining the New Society and assessing its benefits and risks. The obligation on the societies, as charities, is to act in the best interests of mathematics, not their members or themselves as corporate bodies. The decision on whether the societies decide to merge to create a single society must not be influenced by personal views over the name.

For this reason the members will be balloted separately at Stage 3 to seek their preferences on two alternative names: The Royal Society for Mathematics (subject to approval) or The British Mathematical Society.

1.7 The structure of this report

Chapter 1 provides an overview of the Group's analysis of the aspects of a single society that will benefit mathematics, and the areas in which care will be needed in establishing a New Society.

Chapter 2 describes the constitution of the New Society, its Council structure (including the election of Councillors), and the membership structure in the New Society.

Chapters 3 to 8 describe the 'activity' areas of the New Society – its work in support of research, academic publishing, professional affairs, support of education, external relations, and details of member services and benefits.

Chapters 9 and 10 deal with, respectively, the finances and administration of the New Society.

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Chart 1: Programme of actions in the creation of the New Society

Officers & staff	Drafting of Charter, Regulations, etc.		Discussions with Privy Council re Charter etc. Discussions with Charity Commission re transfer of assets to new body.	Society operates under new Charter when charitable status approved (backdated to date of new Charter).		
	Creation of detailed alternative administrative structures. Investigation into differences in staff contracts, terms, conditions and benefits. Development of common staff policies.					
Councils	Prepare and issue ballot papers	Prepare and issue papers for EGM(s)	When new Charter approved and an 'incorporated shell' comes into effect, request to Charity Commission for registration as charity.			
	June/July 2008: Receive and adopt report. Agreement to commend to members	November 2008: Receive interim feedback. Agree to ballot members			March 2009: Receive feedback. Agree whether to recommend merger at EGM	June/July 2009: Receive results of EGMs. Authorise formal approaches to Privy Council, Charity Commission
	Consultation. Circulation of Report and Councils' recommendations. Feedback via web, email, letters, regional meetings, etc.	Ballot in referendum			Members informed of outcomes of ballot and Councils' next actions. Ballot on name of the New Society	EGM(s) to approve creation of merged society and changes to or winding up of existing societies
Staff members	Staff informed of progress and future steps.	Staff informed of decision to create merged society	Staff informed of decision to merge, their rights and the process of consultation.	Staff take up posts in new structure working under new contracts to the New Society.		
			Start of formal consultation with staff. Presentation of proposals and administrative structures. Seek feedback from staff and respond.	Decide on structure to be implemented, with details of all posts, job descriptions, person specifications. Advertise and fill posts.		
Key points	Councils: Decision to consult	Councils: Decision to recommend merger	Members: Decision to merge	New Society starts		
	Referendum of members	Referendum of members	Referendum of members			
Indicative timing	Starting August 2008	November 2008	March 2009	Starting August 2009. Length unpredictable		
	June/July 2008	January 2009	April/May 2009	Mid-2010?		

2: The governance and membership of the New Society

2.1 Introduction

Like the existing societies, the New Society must be a charity, taking on the objectives, assets, responsibilities and liabilities of the two existing Societies (see section 1.4).

Both Societies currently operate under Royal Charters (granted by the Privy Council) and it is intended that the New Society will be incorporated in the same way. Obtaining both Charity Commission and Privy Council approval will be a complex task, the basic steps of which are laid out in the chart at the end of the previous chapter.

The New Society will have (i) a Charter, which will lay out the objects and fundamental framework of the Society, (ii) By-laws defining processes such as membership, meetings, elections, and (iii) Regulations, describing the procedures relating to the Council and other processes. We have not attempted to draw up a set of formal documents, but rather we have laid out the basic elements in the constitution of the New Society which will need to be embedded appropriately into the Charter, By-laws and Regulations – the overall structure of Council will be specified in the Charter or By-laws; specifics of size, nomination process etc. will be in the Regulations.

The Officers of the New Society will be the President, the Honorary Treasurer, the Honorary General Secretary and four Vice-Presidents; seven in all. They will have the following roles, supported in all cases by the staff.

- *The President* will be a distinguished mathematician, who will lead the New Society, and chair its meetings and the meetings of Council
- *The Honorary Treasurer* will oversee the finances of the New Society
- *The Honorary General Secretary* will oversee the affairs of the New Society as a whole. With a longer term of office than the President, the General Secretary will provide continuity through successive Presidencies
- *The Vice-Presidents* will each lead one of the four Constituencies and chair its Constituency Committee

2.2 Constituencies

The New Society will be built around the concept of four Constituencies. Each 'Constituency' represents an area of activity rather than a defined group of members from a particular sector. The members are not confined to a Constituency although there might be some preference by different groups as to which activity areas they choose to participate in.

Constituencies will ensure that the New Society is responsive to, and that its views and activities reflect the interests and concerns of, all members and of the mathematical community as a whole. The Constituencies are reflected at governance level with appropriate mechanisms to preserve their voices on Council; the committee structure is also based on them in order to provide appropriate activities.

The Constituencies and (current) areas of activity that fall under each:

- *Learned Activities* – awarding grants to support research, advancement of mathematics and its applications through publishing, the New Society's meetings and lectures programme, library, conference policy and programme, research consultations, interaction with other mathematical societies.
- *Professional Activities* – ensuring that the CMath and other Chartered designations are implemented according to the Charter, maintaining the associated Initial and Continuing Professional Development schemes, liaison with industry and commerce, related consultations.
- *Education* – engaging with and supporting teachers, schools and colleges, further and higher education (FHE), links with schools and colleges educational bodies, educational consultations, educational grants.
- *External Relations* – informing and influencing the external world, public policy, Government relations, research councils, funding councils, mathematics promotion (including the Mathematics Promotion Unit), CMS, Royal Society, Science Council, non-governmental European and international bodies, public consultations on policy issues, public engagement, media relations.

Inevitably some activities will have objectives that cross these boundaries, especially in External Relations where there must be close linkage with the activities of all three other Constituencies.

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Each Constituency will have a Constituency Committee, chaired by a Vice-President, which will be empowered by Council to operate within a defined budget within a broad strategy. The members of Constituency Committees will be appointed in accordance with a mechanism to be determined by Council for each Constituency Committee. The Constituency Committees are responsible for putting forward nominations for reserved places on Council for each Constituency.

Publications are incorporated into the Learned Activities area, but there will, in addition, be a Publications Committee on which both the Honorary Treasurer and the Vice-President (Learned Activities) sit. In view of the importance of publishing activities the Chair of the Publications Committee will be *ex officio* a member of Council.

2.3 Council

Council will comprise:

- The President
- The Honorary Treasurer and the Honorary General Secretary
- 4 Vice-Presidents – one for each Constituency
- The Chair of the Publications Committee
- 7 General Councillors
- 2 member places per Constituency (a total of 8)
- Up to 3 co-opted Councillors

This will give a Council of 23–26 members.

Normally, the President will serve for two years, but that may be extended in exceptional cases for a further year. The Honorary Treasurer and Honorary General Secretary will each serve for five years with a possibility of one further term of up to five years. The Vice-Presidents will serve for four years with a possibility of one further term of up to five years.

Co-opted members benefit the operation and discharge of responsibilities of Council by bringing in special skills or balance to the representation. The positions are optional and their maximum number has been set so as to form not more than 15% of the total membership of Council.

Council will establish a Nominating Committee whose membership and retirement rota is designed to ensure a regular turnover of individuals.

- For President, Honorary General Secretary and Honorary Treasurer, the Nominating Committee will nominate one candidate for each vacancy. Voting Members (i.e. full Members of the New Society, see section 2.6) may propose additional candidates. The President, Honorary General Secretary and Honorary Treasurer will be elected, if unopposed or two candidates, through a simple majority of those Members who vote or, if there are more than two candidates, by PR (Proportional Representation).
- For Vice-Presidents the Nominating Committee, in consultation with the relevant Constituency Committee, will nominate one name for each vacant post. Voting Members may not add additional candidates. Vice-Presidents will be elected through a simple majority of those Members who vote confirming the election
- For General Councillors the Nominating Committee will make recommendations for the list of candidates or may encourage individuals to stand for election. Voting Members may add additional candidates. The members of Nominating Committee may also act as individuals to encourage potential candidates. The seven General Councillors will be elected using PR.
- 2 Constituency Councillors will be nominated by each of the 4 Constituency Committees. Each Constituency Committee will be expected normally to put forward more candidates than there are vacancies in its places. Candidates need not necessarily be members of the relevant Constituency Committee. The Members may not add additional names but may be given the opportunity to propose names to the relevant Constituency Committee. If any Constituency Committee does not propose at least two Constituency Councillors then the shortfall will be passed over to the General Councillors' election pool. Constituency Councillors will be elected, if unopposed, through a simple majority of those Members who vote confirming the election or, if there are more candidates than vacancies, using PR.

For any election, all candidates' details must be shown on the ballot paper. All elections will allow electronic voting where and when possible.

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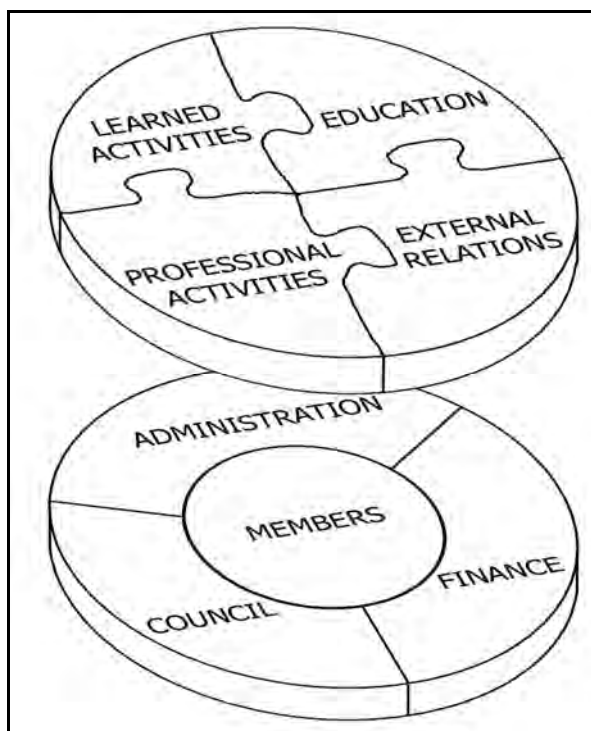
The Nominating Committee will publicise a preliminary 'slate' of candidates sufficiently in advance of the election so that Members can propose additional candidates, having seen the preliminary list of candidates.

A table showing the Council categories and election arrangements is given in Appendix F.

A two-thirds majority decision will be required at both Council and a General Meeting in order to change the structure of and election to Council.

Council will be assisted by the Constituency Committees (and their substructures) and a number of standing committees including an Executive Committee (to implement Council policy and oversee administration), a Membership Committee, a Finance and Property Committee (also overseeing investment policy) and a Prizes and Awards Committee.

Diagram 1: Structural overview of the New Society, showing the relation between the Constituencies and the 'core' of governance and supporting activities.



2.4 The Learned Activities Fund

In the Frameworks Study Initiative consultation, it was proposed that there be a ring-fenced fund containing a lump sum created in the New Society to be used principally to ensure the continuation of the LMS's grants and other activities in support of mathematical research. That proposal received considerable support and thus will be implemented in the New Society.

The Fund – the De Morgan Fund – will be a Designated Fund (see Chapter 9 for further details) under the control of Council to ensure that it remains focused on its original objects; any change in the constitution of the Fund, its management or use will be subject to a two-thirds majority vote at a Council meeting and at a General Meeting. These arrangements will not restrict the New Society unreasonably in the future when circumstances and the needs of mathematics may have changed considerably. The societies will exchange a memorandum of understanding on the use and protection of the Fund before the establishment of the New Society.

2.5 The membership

As mentioned in Chapter 1, the mathematical societies have traditionally recruited considerably fewer graduate mathematicians into membership compared with other subjects in the sciences and engineering. While it may be unrealistic to consider matching the 35–45,000 achieved by the physicists and chemists, it is certainly not unrealistic to believe that a broader society, offering a wider set of activities and groupings, and without the

PROPOSAL FOR A NEW UNIFIED MATHEMATICS SOCIETY

added confusion of two apparently similar societies, will be able to increase its numbers quite considerably. At present the IMA has around 4,500 members and the LMS 2,500. (Around 200 are members of both.) Based on the experience of other societies, and with appropriate campaigns and activities aimed at groups of potential members, a doubling of membership numbers, to around 14,000, would be a perfectly reasonable target for the New Society in its first five years.

Membership brings benefits to those individuals who join. As a charity, the New Society (and the existing societies) must be careful to balance private benefits it offers to members against the public benefits that it provides. Surveys in other societies have shown that members join and remain in membership for many reasons, but the prime reasons for joining are (a) to have access to activities and networking with a community of like-minded individuals, and (b) to contribute actively, financially or intellectually to the purposes of the organization – in the case of the New Society, for ‘the advancement of mathematical knowledge and to promote and enhance mathematical culture for the public good’.

2.6 Membership grades

There will be two grades of membership in the New Society, *Associate Member* and *Member*. Associate Members will be non-corporate members of the New Society and have no voting rights. Members will be corporate members of the New Society and entitled to vote. Within the Member grade there will be special categories of *Fellows*, *Honorary Members* and *Honorary Fellows*. Chartered designations, such as CMath, will be recognised and awarded by the New Society.

The New Society will need to address the issues of the (closed) LMS membership category of Institutional Membership and the IMA’s Schools and Corporate Affiliates schemes.

2.7 Associate Members

Associate Members of the LMS will automatically become Associate Members of the New Society, as will the three non-corporate grades (Associate Member, Student Member and Affiliate) of the IMA.

An Associate Member of the New Society will typically come into one or more of the following categories:

- A university or college student studying for a mathematics or related degree
- A graduate with an interest in mathematics
- A person who, while not professionally trained as a mathematician, is employed in a mathematics-related post or who has an active interest in mathematics.

Many graduates, holding degrees with a substantial mathematical component, who join as Associate Members, will in due course be able to apply successfully to become Members.

2.8 Members

All existing Corporate Members of the IMA and Members of the LMS will automatically become Members of the New Society. Fellows of the IMA will become Fellows of the New Society.

There will be two honorific grades of Member, *Honorary Member* and *Honorary Fellows*. Honorary Members of the LMS and Honorary Fellows of the IMA will automatically become Honorary Members or Honorary Fellows of the New Society.

To be eligible to become a Member of the Society, an applicant will need to satisfy *both* the following conditions:

- Hold a degree in mathematics, a combined degree in which mathematics is the major component, a joint degree in mathematics and another subject, or a degree in a cognate subject (such as physics or engineering) with a substantial mathematical component
- Have three years’ experience after graduation for which mathematical training is relevant and have an appropriate level of professional standing

Members of approved mathematical societies in other countries are deemed to meet these criteria and may be admitted as Members. The societies currently approved by the LMS for this reciprocal arrangement are listed in Appendix G.

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2.9 Fellowship

Members will be able to apply to be designated Fellows of the Society. Fellowship will be recognition by the Society of academic or professional standing. Fellows will have no additional rights or privileges over other Members in the governance of the New Society (e.g. in Council or committee membership) and there will be no compulsion or expectation for Members to take up Fellowship. Fellows will be required to contribute a higher subscription to the Society. Applicants for Fellowship will be required to have senior professional standing based on demonstrable achievement and competence in the development or application of mathematics.

In addition to the approved qualification for the Member grade, applicants for Fellowship will also have to satisfy *one* of the following criteria:

- Completed seven years of research in mathematics or its applications which has made a valuable contribution to the subject
- Completed ten years of responsible work requiring knowledge and application of mathematics
- Made an outstanding contribution to the development or application of mathematics

The level of acceptable work cannot be defined precisely. Generally, commercial or industrial mathematicians will have led a research, development or operational group which uses advanced or applied mathematics. A university member will normally be at a senior level. A school teacher may have made a recognised contribution to mathematics development at a local, regional or national level.

2.10 Chartered designations

All Chartered designations recognised by the IMA (CMath, CSci, CMathTeach) will be recognised by the New Society.

Chartered Mathematician (CMath) is a professional designation. Primarily designed for mathematicians in industry or commerce it is also available in the academic world as a mechanism that provides recognition of subject-specific professional expertise.

Any Member of the Society will be able to apply to become a Chartered Mathematician. To be recognised as a Chartered Mathematician the applicant will have to satisfy all of the following conditions:

- Be a Member of the Society
- Have an honours degree of at least three years' duration in which *either* the mathematical content is two thirds or more of the course *or* the mathematical content is less than two thirds and is supplemented by the acquisition of appropriate mathematical knowledge and expertise
- Have at least five years' postgraduate training and/or expertise involving the practice of mathematics, including at least two years in employment
- Have an appropriate level of professional standing
- Have made a commitment to continuing professional development

Chartered Mathematics Teacher (CMathTeach) is a professional designation for mathematics teachers reflecting their training, experience, knowledge and skills in teaching and mathematics. At the time of writing the scheme is awaiting approval from the Privy Council (see section 5.6).

2.11 Post-nominal letters

Subject to approval by the Privy Council, all members of the Society who are graduates will be entitled, but not obliged, to use post-nominal letters. The precise post-nominal letters will be determined by Council. The members will be allowed to elect, by writing to the Society, for it not to use post-nominal letters in communications with them. A member who makes such an election may revoke it in writing at any subsequent time.

3: The Activity Constituencies – Learned Activities

3.1 Introduction

The New Society will be involved in a wide range of learned activities. The Learned Activities Constituency will be responsible for those activities aimed at progressing and supporting mathematics research and its applications. Its aim will be to seek to:

- ensure the excellence of research within mathematics and its applications
- ensure the development of healthy, vibrant and innovative communities
- support the adoption and utilization of mathematical research

It will address these by supporting, enabling and propagating research, by engaging with and influencing national and regional research funders, and by supporting and cultivating interactions between the associated research communities.

The remit of the New Society will cover pure and applied mathematics (in their broadest sense), mathematical education, history of mathematics and interdisciplinary and multidisciplinary areas. Given that research themes are often multidisciplinary, the New Society will support those involving substantial new mathematical research content.

The two societies currently provide a rich and diverse combination of activities, grants schemes and administrative support as appropriate, within the means at their disposal. The New Society will adopt, adapt and merge these activities into a programme of schemes and events that will build on the success, standing and benefit of these existing programmes within the various parts of the mathematical community.

There are constituencies that are not well served by the current division between pure and applied mathematics. The creation of a single society embracing the union of both existing societies' scope and activities would encourage the planning of interdisciplinary meetings and research. Organizing activities of this type is often difficult if they involve two separate societies. The success of institutes in the UK and overseas shows what can be achieved when barriers are dissolved and the only question is whether a meeting is valuable in itself. These bodies' programmes demonstrate the huge diversity of modern mathematics.

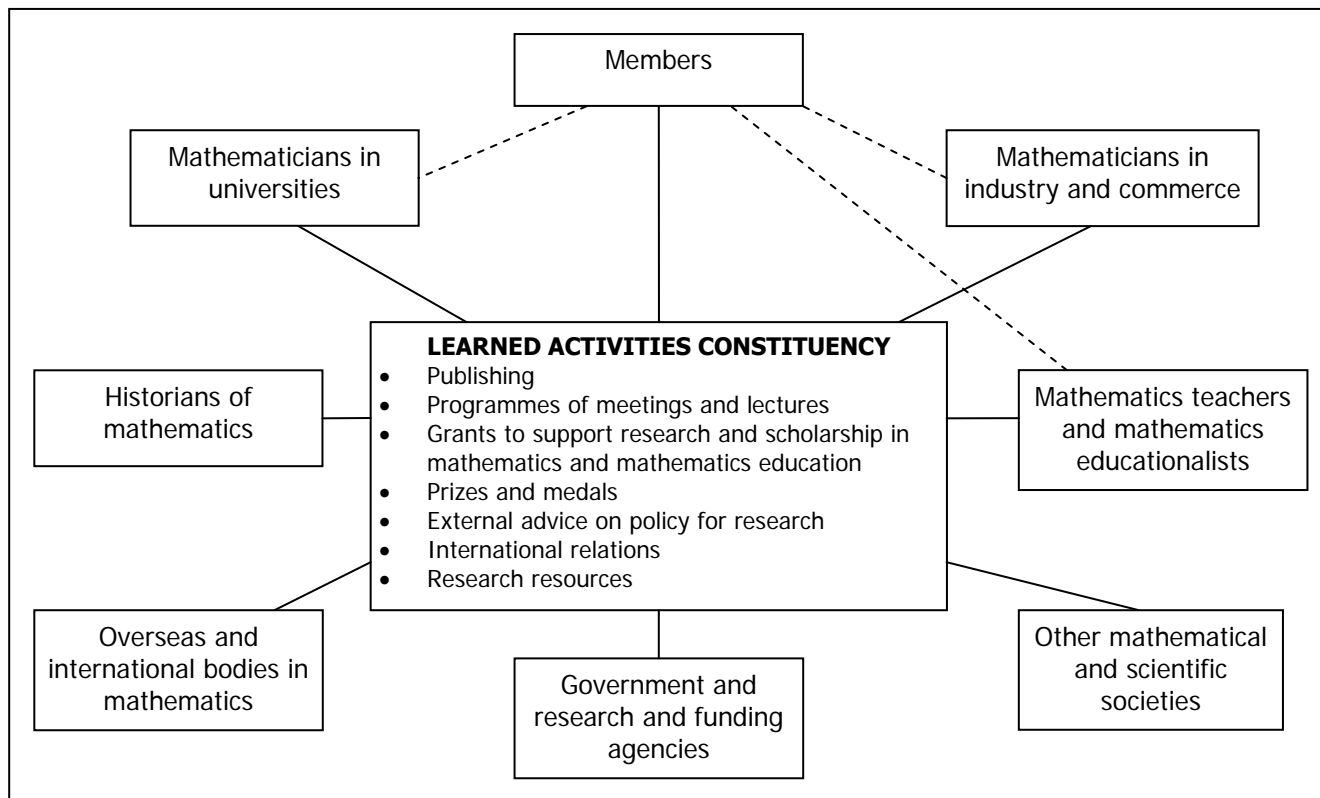
In terms of type of activity, the Learned Activities will fall under the following generic headings, which are described in more detail below:

- publishing (covered separately in Chapter 4)
- programmes of meetings and lectures (and the organization of such events)
- grants to support research and scholarship in mathematics and mathematics education
- prizes and medals
- external advice on policy for research
- international relations
- research resources including a library of academic journals and archives pertaining to the history of mathematics

A Learned Activities Fund – the De Morgan Fund – will be set up, the purpose of which is to support a core programme of grants and other activities in support of mathematical research comparable with current activities. The constitutional basis of this Fund is described in Chapter 2, section 2.4; the financial aspects in Chapter 9, section 9.11. As described in Chapter 9, the Fund will provide funding around £300k p.a.; it is expected that this will be enhanced through the greater leverage that a larger and stronger society would have.

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Diagram 2: the activities of the Constituency and its interaction with members and others



3.2 Meetings, conferences and lectures

The two societies currently organize or support a wide range of events, as shown in Appendix H, from their own society lectures and Branch events, to grants and sponsorship or management of major conferences. This variety reflects the wide range of types of event that different parts of the mathematical community require, and where the societies can best operate. These activities fall into three types:

- *Grants to support conferences* organized and run by other people or organizations. These grants are awarded through a responsive-mode process, assessed by peers, and constitute a charitable grant-giving activity.
- *Conferences and Society meetings run directly by the New Society* for its members and others. Such meetings constitute a part of the Society's own charitable activities and might, in some cases, generate revenue.
- *Conference services* to assist organizers in running a conference. This constitutes a revenue-generating activity. The conferences may or may not be related to the charitable objects, but the society is providing facilities or a service as part of its business activities, with the aim of generating revenue to support its charitable activities.

These three forms of support are quite different but complementary – each has a role in providing support to enable conferences and meetings to occur to the benefit of mathematics.

The New Society will continue to run its own meetings and offer grants to support other meetings across this wide range and numbers may be expected to increase. The larger membership of the New Society will make more regional and subject-oriented events viable, and its greater spread of interests will enable broader-based meetings and events spanning topics and meeting the needs of new mathematical areas.

The IMA, and from time to time the LMS, also offers conference organization services, taking off the organizers the burden of the administration and financial management of running a conference. For many mathematicians in industry or academe, the pressures on their time mean that there is not sufficient time to undertake the administration of conferences; the opportunity to concentrate solely on the programme is therefore very attractive.

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The New Society will continue to offer these services, subject to demand justifying their retention, and will develop its own policies and strategies in respect of them. It will also look to using new methods of making its lectures, meetings and conferences more widely accessible, via web broadcasting, for instance.

3.3 Grants

The two societies both operate grant schemes. The LMS has made grants over a long period and annually awards some £250k to support meetings, international visits and collaborative projects. The IMA operates its Small Grants Scheme, awarding around £12k p.a. The difference in scale between the two societies is an inevitable outcome of their very different financial positions. The various schemes are listed in Appendix I.

Grants are made on an open, competitive basis, without any requirement for the applicant to be a member, with each application assessed by a committee of mathematicians with a wide spread of mathematical interests. The grant schemes are a major part of the societies' work and are greatly valued by the mathematical community.

The New Society will continue to offer grants, drawing on and extending the Learned Activities Fund to ensure that its schemes are able to continue to respond to the particular needs at the time.

3.4 Prizes and medals

Both societies award medals and prizes, as described in Chapter 8. Many of these are for learned activities in research and application of mathematics.

The New Society will continue to award these prizes and medals, and will give attention to the span and distribution of the awards across the breadth of mathematics.

3.5 External advice on research and the promotion of mathematics

Both societies currently provide advice to external bodies such as Governmental and Parliamentary bodies, and research and funding agencies about the current state of research in the UK and about appropriate directions for its development. They do so individually, jointly or as part of other groups, such as the CMS.

The New Society will benefit from its larger and wider membership to be able to speak with authority across all of mathematics. It will be able to incorporate the views of mathematicians from R&D in industry and commerce, as well as from academe.

The New Society's external relations and activities in informing and influencing are covered in more detail in Chapter 7.

3.6 International relations

Mathematics is international, with researchers broadly spread across the world. Participation in international networks, societies and other organizations is therefore an important part of both societies' current activities to ensure that the UK mathematical community is linked with the world community. In the New Society all of these associations will be continued. The single unified society will be better able to act on behalf of the UK mathematical community, and its increased size and breadth will enhance its effectiveness in interacting with overseas societies and organizations.

Some of these organizations are listed below, and a comprehensive list of the two societies' international relations may be found in Appendix J.

The LMS adheres on behalf of the UK to the IMU and associated committees and supports UK participation in their activities. It is a member of the European Mathematical Society. It has reciprocity and exchange schemes with societies and bodies overseas. It also operates several grant schemes to facilitate international collaboration.

The IMA is a member of the European Mathematical Society, the European Mechanics Society (EUROMECH), the European Community for Computational Methods in the Applied Sciences (ECCOMAS) and the International Committee for Industrial and Applied Mathematics (ICIAM). The Institute has taken responsibility on behalf of the latter two bodies for major conferences in the UK.

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3.7 Research resources

Access to the results of research works is a crucial part of research, and the societies facilitate this through their libraries and collections of papers and books. The LMS has a Library which stretches back to the earliest days of the society. It contains books and journals, many received under exchange agreements with societies and organizations overseas. The Library is housed at UCL and is accessible not only by members but by any users of the UCL Library. Books and journals may also be obtained via inter-library loan. The IMA has a much smaller collection of books and journals.

The Library and an associated collection of archives and artefacts is also a key resource for historians of mathematics, who may be looking into developments in mathematics or mathematical bodies, and need access to the papers of past mathematicians.

This resource will pass to the New Society and be available into the future as a unique and ever-growing collection charting the growth and development of mathematics.

4: Learned publications

4.1 Introduction

Publications are an extremely important part of the work of a learned society. They represent a contribution to the advancement of knowledge in the discipline, establish the standing of the society on a national and international basis, and, not least, generate revenue essential to support other aspects of the society's work. A key factor when evaluating the benefits of a single society is that its prestige will at least be equivalent to the combined individual standing of the two societies, and is likely to be well in excess of this.

A single society will be stronger than the two individual societies and will gain from economies of scale, better purchasing power, and an improved robustness to changes in research publishing. It will have a stronger voice in public policy debates, for example in relation to the questions of open access and the archiving of research outputs.

This chapter covers journal portfolios, books and other publications, the impact of developments in publishing, pricing policy, contracts with publishers, staffing issues, and strategic control at Council level. It does not include members' newsletters and magazines, which are covered in Chapter 8.

4.2 Financial contribution to the existing societies

The income from publishing has been the major source of finance to support the charitable aims of the two societies. In 2006/07 65% of LMS revenue came from publishing (almost £700k after staff salaries and overheads had been deducted).

A similar position exists at the IMA. In 2007 revenues from publishing were 44% of total revenue (over £300k after staff salaries and overheads had been deducted).

Both societies have generated significant growth of income in recent years. Details of the current publications of the two societies are shown in Appendix K.

4.3 Journals

The subject coverage of the journals of the two societies is complementary with very little overlap. The combined portfolio will cover the full range of mathematics from pure mathematics such as geometry, group theory and topology through applied mathematics to business and scientific applications. These cover important areas of application such as biology and medicine; business and commercial management; and information and control.

The combined mathematics portfolio will be substantial in academic and financial terms. This will enhance the standing of a New Society and provide greater options in negotiating arrangements for the production of the journals and the methods by which they are distributed and sold.

As learned society publishers, both societies have pricing policies that balance income against the benefits of dissemination of new knowledge. The LMS has recently agreed a pricing policy that aims to hold prices in real terms. The IMA has similar aims, and ensures that its price rises are always less than commercial publishers. No immediate change towards a single pricing policy would be necessary on the creation of a new society but in the longer term a unified policy would be likely to evolve.

The New Society will maintain and build on the existing societies' high standards, identity, editorial quality, subscriber bases and standing for excellence. In time the New Society will establish a reputation in its own right. It will take on the ownership of the existing societies' titles, which have credibility with authors, referees and subscribers. There will be no immediate need to change journal titles, but as the New Society develops its reputation, and when the market is ready, it must consider doing so. This might be done in stages, for instance by providing an overall title containing the name of the New Society while continuing to provide reference to the previous titles.

4.4 Books and other publications

The level of involvement of both societies in other forms of publication is at a much lower level than in journals. However, these publications will maintain their importance in the New Society.

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The LMS has always had greater involvement in book publication than the IMA. The LMS current book series date from 1968. The LMS Monograph series publishes authoritative accounts of current research and high quality expository works. The LMS Lecture Notes are mainly short monographs giving state of the art accounts on topics of general interest. Seminar and lecture notes are also included. The LMS Student Texts are aimed at advanced first degree and first year research students. The LMS History of Mathematics series is published jointly with the American Mathematical Society. The LMS relies heavily on its publishing partners to commission, negotiate contracts on individual books and develop the series but is solely responsible for the appointment of editors and the contractual arrangements with the publishing partners.

The IMA for many years produced proceedings of conferences published some time after the conference with submitted papers refereed. Some conference delegates expressed a preference for papers to be available at the time of the conference. These publications are produced in either printed or CD-ROM form and made available to conference delegates as part of the conference fee and subsequently sold to others. Other conferences continue to produce refereed proceedings available some months after the conference. The IMA has a limited catalogue of monographs and books. In addition the IMA holds the copyright of a number of titles that are currently out of print.

4.5 Recent developments

The LMS strategy has been to develop the existing journals and book series and also to seek new opportunities for expanding its publishing activities. It always demands the highest academic and editorial standards and has addressed quality and revenue issues by the regular review of contracts and service level agreements. Two journals have been added recently: *Compositio Mathematica* and the *Journal of Topology*, both of which have distinct and interesting histories. Where a benefit to the research community is established for launching a new journal, the Society is keen to do so.

The IMA strategy has been to focus on quality at the editorial board level, which has led to significant and tangible improvements in all journals in recent years. Care has been taken to balance the skills of the board with recent innovations in the area of the journal. The IMA has worked closely with its partner Oxford University Press (OUP) in improving revenues through a range of flexible delivery routes, in particular by sales to consortia of universities.

The New Society will look to improve revenues by implementing new projects, such as increasing the range and coverage of its mathematical journals, taking on the production of existing titles for other mathematical groups and organizations, new book titles and improved cross marketing.

4.6 Contracts with publishers

The two societies have different approaches to their contracts with publishers. On some wholly-owned journals the LMS contracts with publishers for the provision of a range of services for which agreed rates are paid from the journals' revenue. Four of the LMS journals are currently printed and distributed through OUP. Contracts with suppliers are reviewed regularly by inviting tenders.

The LMS also has a wide variety of agreements with other societies and publishers. These range from *Compositio Mathematica* which the LMS manages on behalf of the Dutch owners (Foundation Compositio Mathematica), through joint ownership of *Nonlinearity* with the Institute of Physics Publishing, to book series where the LMS receives a royalty. Some publications are co-owned with other societies and the revenues are shared. The breadth of these agreements and the variety of products: journals, translation journals and book series, require regular monitoring and renegotiation of terms by the LMS staff.

The IMA has a partnership arrangement with its publisher OUP. The costs external to the two parties are deducted from the revenue received and the amount remaining is shared between the two parties in agreed proportions. This arrangement is based on the IMA negotiating a fixed term contract with its publisher for all its titles. The IMA asks other publishers to quote when contract renewal is imminent, but for many years has awarded the contract to OUP (current contract to 2012).

Both societies will have contracts in place at the time that a new society would be formed which will continue until their termination. In order to obtain the maximum benefit, the New Society will, at an early stage, need to review these contractual relationships and identify when and how benefits can be obtained from a unified approach to journal publication.

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4.7 Future developments in academic publishing

Electronic publishing has had a major impact on the dissemination of research in mathematics. To begin with, some learned societies thought that this would be a threat to journal publishing but in general journals have incorporated the new technology and increased their revenue. In 1998 the LMS launched the *Journal of Computation and Mathematics* an open access journal for users to browse online abstracts or download full papers without charge.

A new society cannot allow itself to become complacent about its journal portfolio. It will have to strive to maintain and enhance the quality and relevance of its titles. The development of open access and mandatory archiving models have been facilitated by electronic publishing but at their heart, these are models that describe who pays for journals. As such, possible government intervention in this area continues to be a concern.

The position of the New Society as a major UK mathematical journal publisher will be retained if the portfolio incorporates emerging areas and recognises that there is a single global market for mathematics publications at all levels from undergraduate texts upwards. All these issues will need attention, involve risk, and may require an innovative approach. The New Society will need to develop a strategy to anticipate future changes.

4.8 Strategic management of publishing

The LMS Council has delegated responsibility for all its learned publishing operations to the Publications Committee, which advises Council on and is responsible for strategy, overseeing the management of the operation, appointing Editors and Advisors, and for selection of the publishing contractors. Boards and management meetings on the partnership publications are held at regular intervals which vary according to the level of activity of the publication. LMS staff members are involved in both the development and implementation of strategic policy.

The IMA Council has delegated the responsibility for its journals to the IMA Journals Board of Management with similar responsibilities to the LMS Publications Committee. This board works closely with OUP and the OUP representative is present during the majority of discussions. The Board is responsible for investigating the possibility of new titles. The Editors of IMA journals have delegated powers to consider the scope, membership of the editorial board, and the content of individual issues. Each journal has an annual board meeting.

The New Society will delegate responsibility for journals to its Publications Committee. Initially this committee will have to cope with separate contracts and different methods of journal production and delegation to editors. It may need to set up sub-committees to cover these differences in the short term. It is expected that a strategic review of all the publications will take place shortly after the New Society is formed with a view to determining where the publications may benefit from converging some parts of the operation. The intention is to find the best route for improving each journal and book series but not to change the aims and scopes of the publications. In the longer term rationalisation of contracts, staffing, and delegation will result and lead to significant benefits.

Because journals will be so important to the health of the New Society, the Council will consider carefully the composition of its Publications Committee and its publishing operations to ensure that it has the academic, business and professional skills necessary. It should also consider whether it is necessary to include external expertise on the Publications Committee.

4.9 Staffing

The differences in the two societies' publishing activities and the way that they manage and support them are reflected in staff numbers and roles. The LMS employs 3.6 FTE staff including full-time senior level staff providing professional strategic advice and management. The IMA employs 0.7 FTE. In addition the IMA pays the cost of part time administration for each journal editorial team. These differences stem from the different roles, responsibilities and tasks undertaken by editors, OUP and staff in the refereeing, editing and production stages.

Over a period of time the New Society will review its approach to journal management and that will be reflected in the duties assigned to staff, but it is likely that a variety of mechanisms will be retained to reflect the diverse publishing portfolio.

5: The Activity Constituencies – Professional Activities

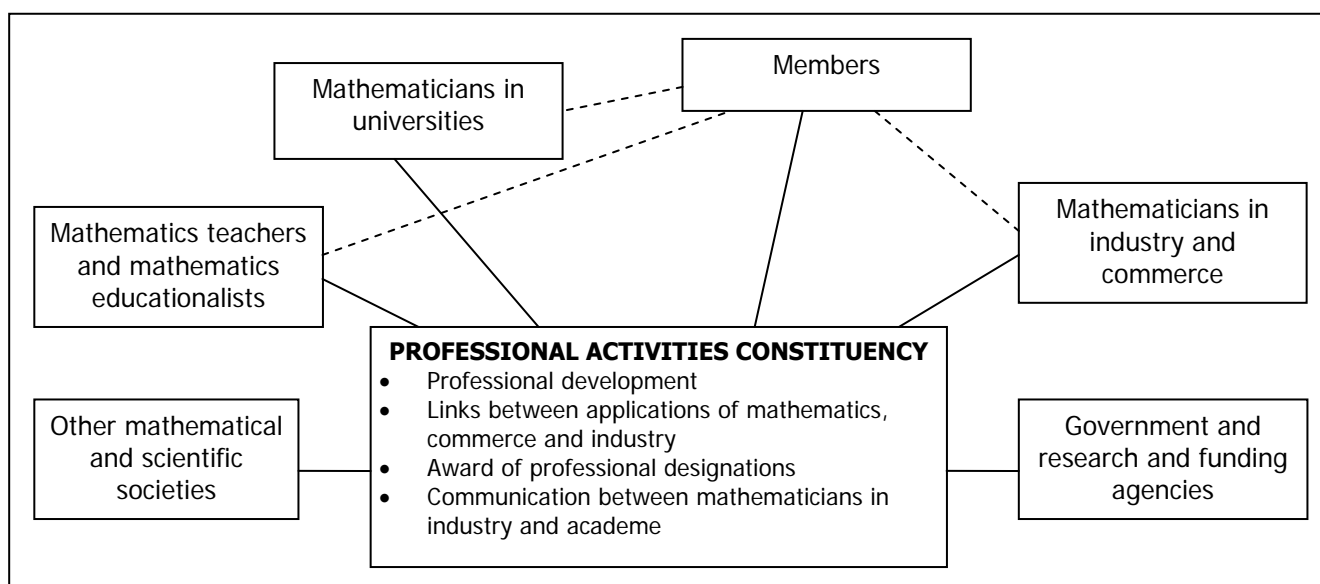
5.1 Introduction

The Professional Activities Constituency covers chartered designations, Initial Professional Development (IPD) and Continuing Professional Development (CPD) schemes, and liaison and consultation with industry and commerce.

The New Society will:

- Support professional development for all members, in particular the accredited initial professional development to new lecturers
- Improve the linkage between applications of mathematics, commerce and industry, and the community of academic mathematicians
- Award all professional designations in mathematics
- Act as a means of communication between mathematicians in industry and academe

Diagram 3: the activities of the Constituency and its interaction with members and others



5.2 Professional designation

All Members of the New Society will be, or will have been, professional mathematicians or people who use, or have used, mathematics as a major component of their professional work. Some of these Members will wish to obtain or retain chartered professional designations comparable to those available for those working in other disciplines.

Chartered professional registers set the benchmark for engineers, mathematicians and scientists to establish registrants at the forefront of their profession. The competencies of these chartered professionals provide confidence to society and employers.

The New Society will continue the long standing availability to Members who meet the requirements of the 'Chartered Mathematician' designation and the new 'Chartered Mathematics Teacher' designation (currently in the final stages of establishment). The New Society expects to inherit the status of a Licensed Body of the Registration Authority of the Science Council for the award of 'Chartered Scientist' designation.

5.3 Requirements for chartered designation, IPD and CPD

The New Society will continue the IMA practice of setting and maintaining the requirements for chartered designations, and defining the content and obligation to participate in IPD and CPD schemes at levels similar to

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those for kindred societies. This will ensure parity of esteem and meet the requirements for continuing Science Council registration. These requirements will be higher and more specific than those for normal membership.

5.4 Chartered Mathematician

The 'Chartered Mathematician' designation will be available to members of the societies who meet certain prescribed conditions. The register will be managed under the Charter of the New Society, whose membership committee will consider and approve applications. It will continue to be comparable in standing and in its admission requirements to similar chartered registers in science, engineering, and technology. Entry requirements include educational attainment based on a degree with a prescribed level of mathematics content or the subsequent acquisition of such knowledge, post graduate training and expertise including a period in employment, and an appropriate level of professional standing (see section 2.10). As is the case at present, those holding the designation will be obliged to commit to Continuing Professional Development (CPD).

5.5 Chartered Scientist

The New Society will expect to have the status, currently held by the IMA, as a Licensed Body from the Registration Authority of the Science Council enabling it to award the 'Chartered Scientist' (CSci) designation. Therefore the New Society will continue to award the CSci designation to applicants who fulfil the requirements. The New Society will monitor the CPD of those holding the CSci designation.

5.6 Chartered Mathematics Teacher

The New Society will have the authority to award this designation in its Charter. (The final phase of approval from Privy Council is in late 2008). The first awards of this designation are planned to be made in 2009, on the recommendation of the CMathTeach Registration Authority which comprises the IMA, the Mathematical Association, the Association of Teachers of Mathematics and the National Association for Numeracy and Mathematics in Colleges (NANAMIC).

5.7 Conduct of Members and Chartered Mathematicians

The New Society will expect all its Members to demonstrate honesty, personal integrity, and a responsible approach in all matters relating to the Society. Chartered Mathematicians and Fellows will have further more specific obligations reflected in Codes of Conduct.

Any person will be able to draw to the attention of the New Society an allegation against a Fellow of the New Society or Chartered Mathematician concerning unprofessional conduct or misuse of mathematical knowledge. The allegation will be referred to a designated member of Council who will lead the assessment of the complaint based on the procedures that currently exist for Fellows and Chartered Mathematicians within the IMA.

5.8 Activities for the support of professional members

The New Society will provide activities and assistance to help members and registrants to meet their IPD and CPD requirements. These activities include conferences, branch and specialist meetings, web site content, and articles and information in the New Society's members' publications (see Chapter 8). Clear procedures will be put in place to help mathematicians attain satisfactory professional development and thereby enhance their careers.

The New Society will work to provide accredited professional development for new lecturers in universities. It will work with other bodies as appropriate (including the Mathematics, Statistics and OR Network (MSOR) and the National Centre for Excellence in the Teaching of Mathematics (NCETM)), to lead and influence the requirements on and support for mathematicians who teach in universities. This should obviate any requirement for mathematicians to undertake generic teacher training that is inappropriate in the teaching and learning of mathematics.

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5.9 Graduate Training Schemes

The New Society will continue the IMA practice of specifying the requirements for, and approving, company graduate training schemes. The scheme covers the training and professional experience required to satisfy most of the requirements for admission to the Chartered Mathematician register. It includes core technical and business components supported by the development of the personal and managerial skills expected from a professional person. The scheme requires the drawing up of a training plan with items, once they are completed, recorded in a log book. The involvement of a mentor is part of the scheme. Companies that can demonstrate that they meet the scheme's requirements are approved for five years and can use the approval in their recruitment literature.

5.10 Liaison with commerce and industry

The New Society will maintain and develop the current links, mostly through the IMA, with commerce and industry. These links are mutually beneficial and in the national interest. The benefits include:

- Provision of information on current developments in research and application of mathematics to commerce and industry
- Provision of 'good news' stories to research councils and funding bodies
- Membership and registrant recruitment
- Increased sponsorship of conferences and other activities
- Incorporation of the views of commerce and industry in the representations made by the New Society to government and statutory bodies especially in relation to research funding and mathematics education at all levels
- Assistance in recruitment of graduate and qualified personnel

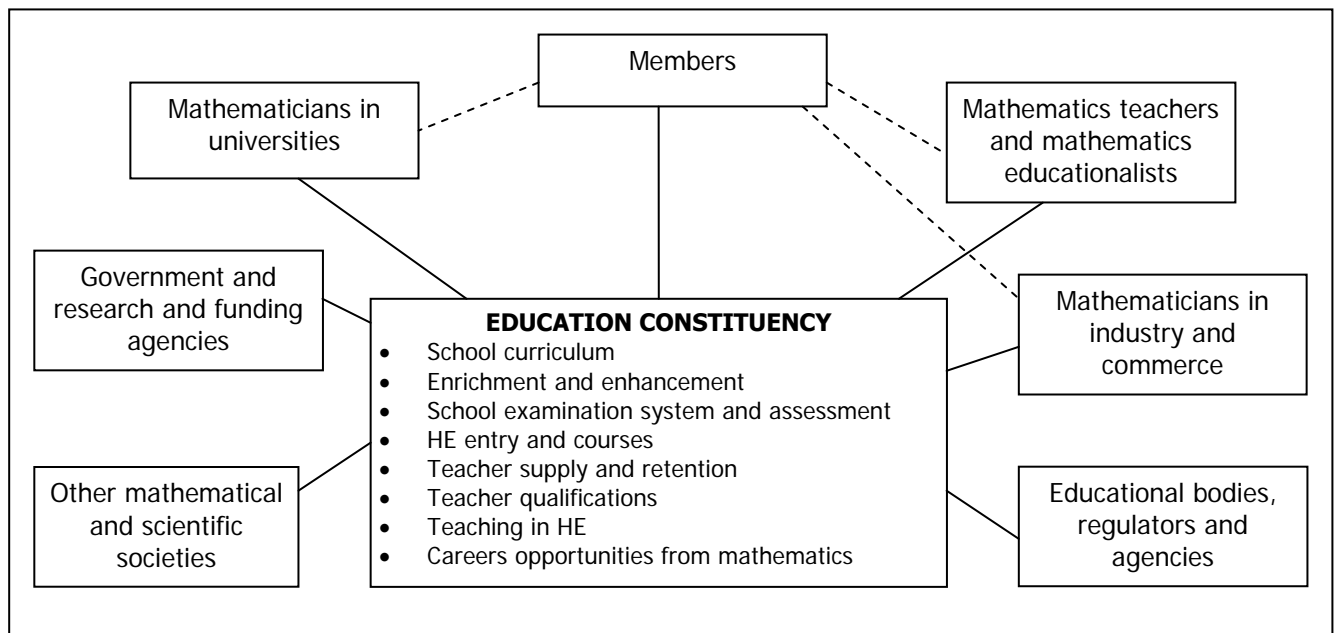
This can be achieved by extending the existing company affiliate schemes in content and the number of companies involved, encouraging more companies to pay membership subscriptions for their employees, and increasing the number of approved company IPD schemes leading to chartered registration. In addition benefits may accrue from new forms of liaison.

6: The Activity Constituencies – Education

6.1 Introduction

This Constituency has a broad span covering all educational activities in the New Society. This includes schools and colleges, secondary and further education, teaching and learning in Higher Education (both undergraduate and postgraduate), mathematical training for teachers and links with schools and colleges. It also includes links with educational bodies, educational consultations and the provision of small educational grants. It covers policy matters relating to education, from issues relating to assessment at age 16 to structural legislation such as the Bologna protocol.

Diagram 4: the activities of the Constituency and its interaction with members and others



Both the IMA and the LMS have strong interests in education, and seek to represent, and take account of, the views of the entire mathematical community. Nevertheless the differences in the constituencies, employment sectors and interest areas of members in the two societies has, inevitably, led to differences in the emphasis and policies taken by the two societies. More recently there has been a close liaison between the societies and the respective education committees and Council representatives, so that the two societies work together. An outline of the two societies' activities in education is given in Appendix L.

The formation of the Advisory Committee on Mathematical Education (ACME) in 2002 provided an independent voice for mathematics in discussions with government. The two societies have continued to be active in many ways in education while recognising and supporting ACME's position and influence.

The formation of the New Society will bring significant benefits.

- Unified committees will bring expertise across the breadth of the two societies' memberships, from teachers to researchers, enabling policies to be shaped that take account of the needs and views of all parts of the mathematical community
- The New Society will be able to achieve a single comprehensive mathematical position, strengthening our responses to the media and to government
- The resources of the two societies will be combined to create a greater critical mass able to achieve more than the sum of the two parts
- Educational schemes (such as speakers in schools) will have greater membership numbers to call on, increasing their breadth and effectiveness
- The greater scale of operation and numbers will enable the New Society to be seen to be active in education (schools, colleges and universities) across the UK, where currently the scale is too small to maintain effective activity

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- The New Society will be able to speak for mathematics in policy forums, such as QCA, Joint Mathematical Council (JMC), Science Council, etc. with greater strength, on a par with the bodies in science education
- Duplication of effort, for instance representation at committees and meetings, will be avoided, the calls on members' time reduced, and costs saved

6.2 Schools and colleges

The New Society will address matters concerning mathematics education in secondary schools and colleges, particularly from age 14, but occasionally from age 11. These include:

- Commenting and advising on matters relating to teaching and assessment, teacher supply and mathematical training, interaction with other subjects, etc.
- Liaison with the agencies and bodies responsible for setting the qualifications and assessment framework, and for devising the courses studied by pupils in schools and colleges
- Direct provision of enhancement and enrichment of mathematics teaching, through speakers, pupil clubs, small grants, etc.
- Publication of materials to assist pupils, teachers, governors and parents to appreciate the role and value of mathematics within the curriculum
- Provision of careers materials and support structures (e.g. www.mathscareers.org.uk) to show the opportunities that studying mathematics provides, including at post-16 level, and the limitations on future options of stopping
- Contributing to the professional development of teachers of mathematics through the CMathTeach designation
- An affiliate scheme with Schools and Colleges to enable them to receive copies of the New Society's magazine(s) and resource materials, to take part in activities
- Taking on the two societies' role in the *moremathsgrads* project and similar initiatives to raise the aspirations of young people by studying mathematics post-16 and into higher education
- Supporting regular conferences and meetings at a national level to enrich and enhance the teaching environment and add to teachers' confidence and competence

The New Society will work closely with other bodies in this area, including the Advisory Committee on Mathematics Education (ACME), Joint Mathematical Council (JMC), Mathematical Association (MA), Association of Teachers of Mathematics (ATM), the National Association for Numeracy and Mathematics in Colleges (NANAMIC) and Association of Mathematics Education Tutors (AMET).

6.3 Higher education

The New Society will be in a strong position in respect of teaching in higher education, with a considerable presence in UK university departments of mathematics. With an increased membership, partly drawn from this sector, it will have the expertise and resources to comment on and influence policies.

Areas likely to be of concern to the New Society include:

- Commenting and liaising with the funding councils, Government, QAA and other agencies and bodies on matters relating to mathematics in higher education
- The health and stability of mathematics departments across the sector, and the provision of mathematics undergraduate courses for all levels of entrants whatever their employment ambitions
- The framework for higher education and qualifications in the future, including European and international harmonisation and comparability
- The importance of rewarding and respecting teaching and learning in a sector with an increasing emphasis on research performance and financially-driven departmental strategies
- The setting of benchmarks for undergraduate courses in mathematics
- The role and importance for academic staff and students to support education in schools and colleges, through classroom assistance, enhancement and enrichment, and support for school mathematics teachers
- The need for good training for new lecturers that is appropriate to teaching of mathematics

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- An affiliate scheme with university departments, undergraduates and postgraduates, to enable them to receive copies of the New Society's magazine(s), to take part in activities, and allow the New Society to attract new members

6.4 Education in the New Society

The New Society will need to consider the best way in which matters concerning education should be addressed. The two societies have different approaches at present – the model of two separate education committees (one concerned with School and College matters and the other with HE) has worked well for the IMA while the LMS moved away from that model just a few years ago. The support for the educational work is similarly rather different, with the IMA employing a dedicated education officer. The New Society may wish to bear in mind the scale of educational work undertaken by the societies in the sciences, and the benefits that has brought to their subjects.

7: The Activity Constituencies – External Relations

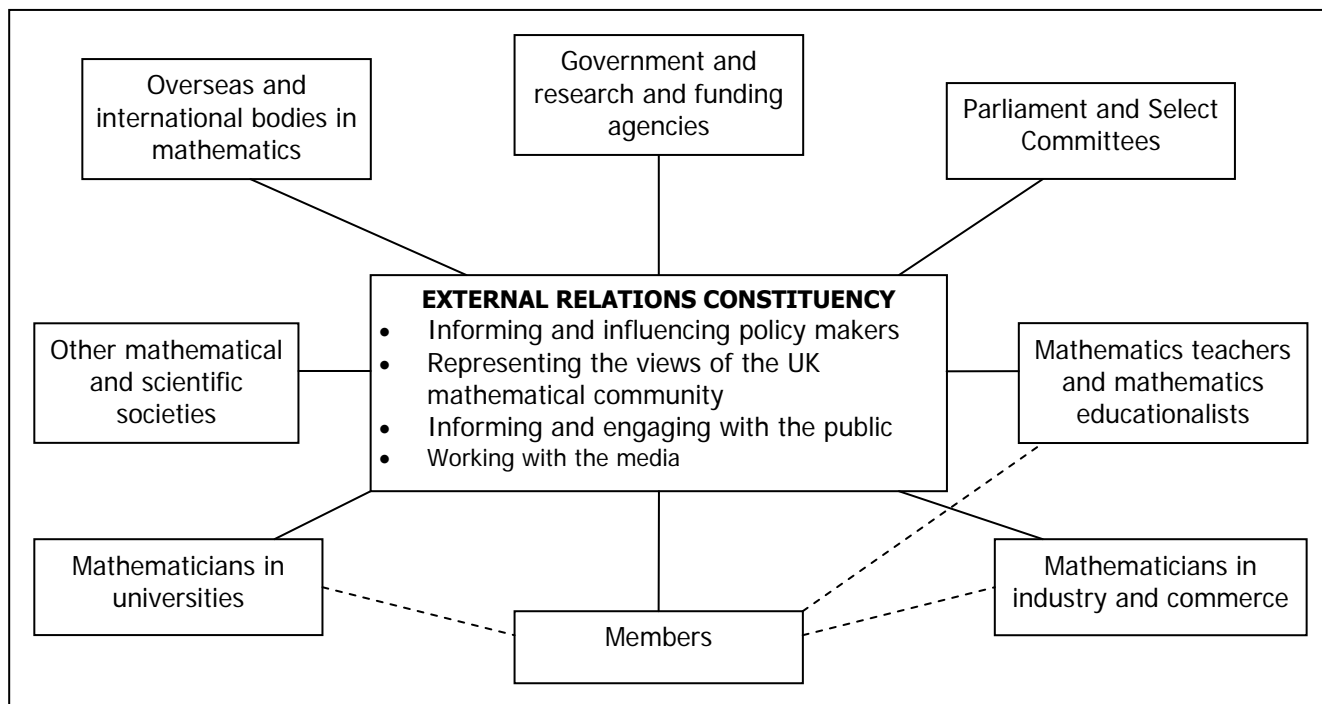
7.1 Introduction

The aim of the Constituency is to promote a public appreciation (by government and others) of the role and importance of mathematics and an understanding of its scientific, economic, and social benefits, to society as a whole and to individuals.

The New Society will work in four main areas:

- informing and influencing policy makers, advisers and opinion-formers in government, funding and research agencies, education, industrial and business groups, etc.
- representing the views of the UK mathematical community in national and international forums
- informing and engaging with the public to raise their interest in mathematics, what mathematics is and how it contributes to their life and work
- using the media to present the society's messages about mathematics and bring it to the attention of the groups above

Diagram 5: the activities of the Constituency and its interaction with members and others



7.2 The voice for mathematics

The New Society will be a single voice for mathematics, speaking with the confidence and strength of a unified mathematical community. Both societies currently engage in such activities, often working collaboratively or together under the auspices of a body such as the CMS. But the very existence of the two bodies, whose distinctions are unclear or irrelevant to many of those whom we try to influence, diminishes the political strength of our voices, especially when compared with the effectiveness of the large subject groupings such as the chemists and physicists. The New Society will bring a strong and coherent strategic view of and from mathematics across the UK.

Of course there will be closely related subjects still with their own societies – statistics, mathematics education, etc. – but the most important aspect of a single society is that it will be the community of mathematicians speaking as one and will prevent the divided and fragmented view of the community currently seen by the outside world. The New Society will provide the ‘one-stop-shop’ sought by politicians, and will have the unity and size to carry weight where currently neither existing society has sufficient credibility or standing.

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At present it is often the case that just one society is consulted on an issue. In recent years the mathematical organizations have worked together wherever such a situation is recognized, to present a comprehensive and unified view (for instance on the RAE or the approach from HEFCE that led to the *moremathsgrads* project), but it is highly probable that on some occasions this has not happened and a view has been returned that omits the interests of a large part of the community.

In international relations a single mathematics society in the UK will bring together the UK's participation in non-governmental bodies and ensure that the UK mathematical community is heard at, takes part in and draws on the activities of these bodies, as part of the worldwide community of mathematicians.

7.3 Council for the Mathematical Sciences

The CMS has a complementary but separate role. CMS was not set up to replace the member-based societies, but to bring strength to the way the mathematical sciences interface with government and decision-makers. CMS brings a wider perspective of the mathematical sciences, including statistics and OR. Over its lifetime it has evolved from meetings of the Officers of three societies to having greater independence of thought and action under an independent chair and secretariat. It draws its strength from its constituent societies (now five) but has developed its own position.

Inevitably, a multi-organizational 'umbrella' body cannot be nimble – agreeing on whether to respond, assembling a representative group, and crafting and getting agreement to a single response, is time-consuming, and sometimes difficult. Moreover, the broader span of interests across all the mathematical sciences means that CMS may not find itself able to reflect clearly and fully the interests of mathematics.

The dynamics of CMS's relationship with government, agencies and other 'stakeholders', acting as an authoritative and objective body, will be quite distinct from the New Society, which will provide the voice and expertise of the mathematical community. CMS has already achieved standing – it has, for instance, a seat on the Government's High-Level Strategy Board for STEM. Like ACME (which it complements) CMS needs to remain independent from the particular interests of individual constituent societies or their members if it is to be accepted as an impartial partner by those with whom it negotiates.

CMS will inevitably have its own priorities and programmes of activity, devised to address its constituency, its audiences and its stakeholders. The New Society will participate in debating and setting those priorities and programmes; moreover its own external relations and activities to influence policy makers will gain from being a part of the CMS.

7.4 The LMS–IMA Mathematics Promotion Unit

The establishment of the Mathematics Promotion Unit (MPU) by the LMS in 2004 reflected the LMS's wish to engage more professionally with decision-makers, and the decision of the IMA to collaborate with and contribute to the finances of the Unit has added to its strength and activities. The Unit has been active in many ways. It has:

- issued media releases on significant events and activities in mathematics
- prepared materials for the 'Maths Inside' initiative at the Royal Society Summer Exhibition in 2007 and 2008 which brought out the mathematics embedded within science research exhibits
- supported written and oral evidence to Parliamentary Select Committee inquiries
- worked with the EPSRC on a mathematics awareness raising event for politicians held in the Houses of Parliament
- collated, and made publicly available, statistics on mathematics at school and university level
- created a network of organizations involved in promoting mathematics to policy-makers or the public
- met with politicians, journalists, and others to discuss the way that the importance and interests of mathematics can be promoted effectively

In the New Society the Mathematics Promotion Unit will provide a more central role in the development and implementation of strategy to promote mathematics, and provide an input to key issues across the breadth of the New Society. The New Society will have a higher profile with the public and media, and will inevitably be seen as the point of contact by journalists and feature writers – the consideration of creating a media and promotion office operating full time will be a prime issue for the New Society.

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7.5 Influencing government, parliament, funding and research agencies

An important objective of the New Society will be to inform and influence policy makers, advisers and opinion-formers of the role and importance of mathematics and an understanding of its scientific, economic, and social benefits.

There are some obvious audiences towards which the New Society will wish to direct its policy activities: Government Departments, including the Devolved Administrations; Parliament (including MPs, Lords and Select Committees); research councils and funding councils; educational agencies (such as the Qualifications and Curriculum Authority).

The UK government has expressed its support for the STEM subjects (science, technology, engineering and mathematics) and has indicated its recognition of the role that mathematics plays. It has accepted the evidence (for instance from the International Review of Mathematics) that UK mathematics research is world-leading. Nonetheless, steps to turn that support into practice and ensure the future continuation and health of mathematics in the UK have been less visible. Mathematics has too often been seen as a part of 'science' and solutions have been assumed to work equally across all the different sciences and mathematics. There is, therefore, an unprecedented opportunity for the New Society to demonstrate how new and appropriate support structures and funding mechanisms for mathematics, can be effective in ensuring a healthy mathematics research base, its application and exploitation, and effective education and training in mathematical skills, all of which are crucial to the health and wealth of the country.

The New Society will build on its experience in engaging with policy-makers, in particular the work of the MPU, and learn from the successes of other societies in other areas of science. The types of activity that may be expected to be used include:

- meetings with Ministers, heads of agencies and senior officials
- responses to Parliamentary and Governmental inquiries
- reports on key issues in mathematics, built on a good database of statistics about mathematics and mathematicians
- 'campaigns' to raise awareness of mathematics and its potential
- letters to the broadsheets in response to news events or to stimulate debate
- the creation of links with MPs and Lords, and using them to raise Parliamentary Questions in the House
- production of information materials to inform Parliamentarians of how mathematics is relevant to ongoing legislative debates in education, economic development, skills supply and research structures, etc.

7.6 Representing the UK mathematical community nationally and internationally

The New Society will inherit all the links that the existing two societies have with other bodies, and while some rationalisation will be possible, those links that are relevant and not best operated by or through some other body should be retained, indeed nurtured. These links will greatly increase the New Society's effectiveness as the representative body for mathematics in the UK, both by making the society's voice heard and its influence felt, and as a means of the society's informing itself of matters it needs to know about.

Links with UK mathematical organizations include:

- the Isaac Newton Institute in Cambridge and the International Centre for the Mathematical Sciences in Edinburgh
- the British Mathematical Colloquium (BMC) and the British Applied Mathematics Colloquium (BAMC)
- the Heads of Departments of Mathematical Sciences (HoDoMS) and the Conference of Professors of Applied Mathematics (CPAM)
- Edinburgh Mathematical Society and other mathematics societies in the UK
- societies devoted to particular areas of mathematics such as the history of mathematics

The New Society will be well-placed to play its part as the unique body for mathematics within the body of scientific and engineering institutions (alongside organizations such as the Engineering & Technology Board, the Institute of Physics, Royal Society of Chemistry, etc.) and on pan-science and engineering bodies such as the Science Council, Campaign for Science and Engineering, Foundation for Science & Technology, etc. This

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will ensure that the voice of mathematics is heard and is more effectively incorporated into the policies and activities of those bodies.

Internationally the New Society will take on the roles currently carried by the two societies: as the UK adhering body for the International Council for Industrial and Applied Mathematics (ICIAM), the International Mathematical Union (IMU) and the International Commission on Mathematical Instruction (ICMI); and membership of the European Mathematical Society, amongst others, and it will be natural for a New Society to continue those connections. The New Society will speak for UK mathematics on those bodies and ensure that UK mathematicians play a full part in their programmes.

More is said about the New Society's involvement with other countries in Chapter 3 (Learned Activities) and Chapter 2 (Constitution and membership)

7.7 Informing and engaging with the public

A primary mechanism for the public to hear about and engage with mathematics is via the media. The New Society will work both with the media (see below) and take a direct and proactive approach to public engagements, drawing on the enormous developments in science communication over the past 20 years.

The New Society will encourage its members and other mathematicians to engage directly in public promotion. There are already excellent examples and these should be used to encourage others. The joint IMA-LMS Christopher Zeeman Medal was established to recognize and reward these. The New Society will act in several ways to enhance these activities; while premature to define precisely what programme the New Society will adopt, it will consider the following:

- Small grants to support public engagement activities
- Participation in the public festivals of science – Cheltenham, the British Association Festival of Science, Science and Engineering week
- Support for schemes that enable mathematicians to engage with public audiences and schools, and influencing department heads and PhD supervisors to encourage their staff and students to take part
- The organization and support of talks and events (possibly via the members spread across the UK) aimed at public audiences

7.8 Media relations

The New Society will build on the work of the two societies to extend its contacts with the printed, broadcast and web-based media. The media, especially the broadsheets and selected broadcast programmes (such as the 'Today' programme) have a significant impact on policy-makers and formers – it will be important to maintain the visibility of mathematics (a 'drip-feed' of awareness) in these media. For much of the population, once they leave formal education, the media are essentially their only source of information on science and mathematics. It requires both news and features on mathematics-related topics to address this; fortunately the media are keen to get hold of good mathematics items. The LMS-IMA Maths Promotion Unit is already active in initiating and supporting such activities but is hampered by being only staffed part time.

7.9 Communications media

The New Society will have a proactive approach to communication, with appropriate mechanisms and materials to inform its various external stakeholders. Some more specific mechanisms and materials have been mentioned above, but there will be some more generic mechanisms too.

The New Society's website will be a focal point for provision of information on mathematics – an information resource in itself and a portal to the sites and resources of other bodies. It will be designed to meet the needs of diverse audiences – members, policy advisers, teachers, pupils and the public. The site might include such features as:

- A description of the aims, objectives, structure and brief history of the New Society
- Publications: journals, book series, newsletter(s)
- Events (including Meetings and Conferences)

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- Email contact or message board to ask questions (allows members and non-members the opportunity to put over their opinion on Mathematics and the New Society and to ask questions of it)
- Resources and accessible features – downloadable articles, audio interviews, video lectures etc., maths puzzles, cartoons, blogs (e.g. 'My life as a Mathematician')

A range of corporate promotional materials will be produced to give a higher public profile to the New Society and ensure that those whom it wishes to inform and influence are aware of it, its expertise and its activities:

- general leaflets on the New Society, and on its activities in particular areas – education, international relations, grants, etc.
- brief and interesting annual report on its activities, achievements and plans
- display materials for stands at major conferences and festivals

8: Supporting structures

8.1 Introduction

Both the IMA and LMS have a number of supporting structures that will continue in the New Society. Some relate to professional standing such as membership or the Chartered Mathematician and Chartered Scientist registers. Others reflect the different emphases and priorities of the two societies, but offer opportunities to expand their impact and levels of involvement. These include diverse topics like prizes and women in mathematics where the LMS has the greater involvement, and branches and younger member activities where the IMA is more advanced. Good and effective communications with the membership through both printed and electronic media will remain a high priority.

8.2 Membership Committee

The New Society will appoint a Membership Committee to consider applications for admission to specific grades, or transfers between grades. The committee will also consider applications for admission to the 'CMath' and 'CSci' registers. A body with wider representation will consider applications for admission to the 'CMathTeach' register. The committee will advise Council on any proposed changes to membership regulations.

8.3 Reciprocal membership with other mathematical societies

The New Society will continue to offer the present LMS reciprocal membership arrangements with 19 mathematical societies in other countries (see Appendix G). These agreements enable a member of one society to become a member of the other at a reduced subscription rate. The New Society will consider extending this facility to other mathematical societies and will decide on the level of subscriptions to be charged and what services will be provided.

8.4 Prizes and awards

The two societies currently award a range of medals and prizes, listed in Appendix M. In recent years the two societies have established new medals jointly – the David Crighton Medal for services to mathematics and to the mathematical community, and the Christopher Zeeman Medal for excellence in the promotion of mathematics.

The New Society will continue the practice of the IMA and LMS in awarding prizes and other awards. Although some rationalisation may be desirable, the portfolio of prizes will be extended rather than reduced. Attention will, of course, need to be given to the design of the medals to reflect the New Society.

8.5 Branch and local activities

The New Society will continue to support branches. Currently, the IMA branch structure is based on five regions including Scotland and Ireland. The LMS has less formal arrangements but supports regional meetings in four parts of England and Wales. The IMA branches hold talks, social events, and educational activities involving schools and career days. The meetings provide opportunities for members from the full range of membership backgrounds to network with mathematicians from a variety of employment areas. The LMS regional meetings are principally intended for academic research mathematicians. The work of the LMS Spitalfields Days will also be continued. Opportunities exist for the New Society to expand and develop regional services. Regional activities can be expanded as the size of the society grows and the local networks of mathematicians are improved.

Subject oriented groups in the New Society will be able to organize local talks and other events for the benefit of members and to attract new members and the general public. These will be in a position to provide valuable feedback to the New Society. It is likely that the New Society will choose to sustain a network of university representatives.

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8.6 Younger members

The New Society will continue to support the IMA 'Younger Members Group'. The group organizes two conferences each year, provides a focus for younger members at early stages of their careers to network and advises on progression to chartered status. It provides a channel for younger members to influence policy and services through representation on Council and identifies younger members to serve on other committees.

The New Society will enhance its activities and efforts to engage with younger members and encourage membership by those studying mathematics at university and in their early careers.

8.7 Equality, diversity and widening participation

The LMS's Women in Mathematics Committee contains members of both societies (and of the Royal Statistical Society). It addresses issues relating to women in mathematics and collects and publishes information relevant to women in university mathematics departments. It investigates and implements measures concerning the retention of women in mathematics. It holds an annual Women in Mathematics Day and is responsible for the LMS's Mary Cartwright lecture.

The New Society will continue this focus on activities to engage with and support women in mathematics. It will encourage more girls and women to study mathematics and to proceed to, and remain in, careers that use their mathematical knowledge. The New Society will build on and expand these activities to women mathematicians working in all areas. It will continue to work with other bodies in mathematics and in the wider STEM and public arena. It is hoped that the New Society will expand its activities in this area to action the Widening Participation agenda, through activities similar to the **more maths grads** project that is supported by both societies and paid for by the Higher Education Funding Council for England (HEFCE).

8.8 Communication with members

Communication with members will continue to be paramount in the New Society. The present publications are much appreciated and new publications will reflect the two existing formats.

The New Society will produce and disseminate to members (electronic and/or paper) both regular news information and a periodic (possibly quarterly) high-quality printed member publication.

The former will convey items of an immediate and time-limited nature of interest to members – forthcoming meetings and lectures, deadlines for grants and awards (of the New Society and others), employment opportunities, etc. The latter will contain such items as: mathematics news and other relevant scientific information, articles on and interviews with prominent figures in mathematics, reviews of popular books and other media, letters.

8.9 Other services for members

Other services available to members will include facilities at De Morgan House, access to the current LMS library housed at University College London and a discount on publications and events for which fees are charged.

Surveys of members, taken from time to time, will allow the New Society to gain useful feedback and thereby plan facilities and activities for the future.

8.10 Website

The New Society's web-site will be important to members but also to those members of the general public looking for information on mathematics or the New Society.

The web-site is described briefly in Chapter 7, in respect of its role in external relations and informing the New Society's many external (non-member) audiences. The website should also contain features specifically for prospective and existing members:

- membership information, including how to join, subscription rates, grades, Chartered designations
- information and facilities for members, including groups, branches, methods of payment (including the ability to pay on-line)

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- Society meetings, conferences, subject groups, local branches
- a 'closed' area for confidential Society matters, including access to committee papers
- an electronic list of members, their interests and their contact details

8.11 Conferences

Conferences and talks will help to introduce non-members to the New Society and its events.

These events will be advertised widely in the newsletter, on the web-site and in other ways for the benefit of those who wish to attend, read papers or give presentations.

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9: Finance

9.1 Introduction

This chapter looks at the finances of the two societies and the consequences for the New Society. Although it examines in reasonable depth the main aspects of income, expenditure and assets it is not intended to provide the sort of detailed investigation – a ‘due diligence’ process – that would be required before a merger could take place. That would require the involvement of professional accountants and the exchange of business-related information that would be inappropriate or improper at this stage.

The chapter aims to scope out the income, expenditure and assets of the New Society, working on the basis of the published financial documents of the two societies and combining them to give estimates for the New Society. It comments on the comparability and compatibility of the two sets of financial data and identifies areas of possible difficulty in converging the two societies’ finances.

At a first approximation the creation of the New Society combining the assets, income and potential of both societies offers several financial benefits.

- The combined assets of the New Society would bring stability to future operations and planning
- A larger and more diverse publishing operation will offset some of the risks inherent in the future of academic and journal publishing
- The scale of operation will make viable and reduce the risk of pursuing new opportunities
- Economies and efficiencies of scale will be brought to many areas of operation and expenditure
- Economies will also be obtained from the rationalisation and loss of duplication of activities and support functions, allowing these resources to be used more directly for the New Society’s primary purposes
- A larger and more active society will provide a base for a major growth of membership, in particular from graduates and corporate affiliates

While there must be detailed assessment of the financial basis of each society before a merger takes place, the analysis so far has identified no particularly worrying or potentially insoluble difficulties or risks from a business point of view.

9.2 Income

The primary sources and scales of income for the two societies are²:

	IMA <i>1 Jan–31 Dec 2007</i>	LMS <i>1 Sept 2006–31 July 2007</i>
Interest and income from investments	£34,791	£369,590
Membership fees and subscriptions	£258,044	£68,947
Conference and symposium fees	£156,636	–
Conference facilities hire	–	£102,120
Publications income (net)	£364,430	£692,703
Miscellaneous income	£2,887	£12,465
Grants, contracts and project income	£6,416	£77,164
Appeal Fund, Donations and Bequests	£20,943	£4,020
Total	£842,278	£1,327,009

The main income sources are discussed below.

² The figures in the tables in this chapter are taken from the two societies’ audited accounts, but for different financial periods. Accordingly summation and direct comparisons are not valid. In particular, the two societies’ income and expenditure on publishing is dealt with differently. While efforts have been made within this table and within the table in 9.8 to represent the figures on an equitable basis it does lead to the outcome that the two tables cannot be directly compared.

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9.3 Publishing

As seen above, at least in the early years income from publishing will constitute the New Society's largest single income source, with gross revenue (i.e. total sales before any deductions) of the order of £1.8M (2007 values) contributing a net surplus to the societies of just under £1M.

Chapter 4 deals in more details with the implications and opportunities resulting from the creation of a single publishing operation with a wider portfolio. Financially, the creation of a single publishing operation should provide greater stability and opportunities than two smaller operations working separately while at the same time maintaining the identity, standards and editorial continuity of the existing journals. The scale and reputation of the New Society as a mathematical publisher will open new opportunities for publishing in both traditional and new media.

Nonetheless, academic publishing will still continue to be an area of longer-term concern, and there can be no assurance of the maintenance of current levels of income, even the possibility of holding them in real terms. It is crucial, therefore, that the New Society takes a proactive approach to seeking new opportunities in publishing (and elsewhere) in order to safeguard its future. It will need to set itself a target of increasing income from other sources, both existing, such as providing conference organization services and hiring out conference facilities, and new, as yet unexplored, sources.

9.4 Investment income and interest

At least initially, income from investments and interest on deposits will form the second highest income source in the New Society, at just under £400k (2007 values).

The New Society will develop its own investment policy including how it draws from those investments to fund itself and its activities. It would seem sensible, nonetheless, that it should consider continuing the LMS's policy of investment by professional investment managers to manage the portfolio to maximise total return, and the operation of the 'Yale' model for drawing from investments³. This formulaic model takes into account the total value of the investments and previous year's withdrawals to smooth out year-on-year fluctuations.

There is no reason why the New Society should not continue to take as income the sum of the two societies' current figures.

9.5 Membership

Membership comprises a major part of the IMA's income, but less so for the LMS. The combined income is of the order of £350k, the third highest income source.

The level of membership income in the New Society will be primarily dependent on two factors – membership numbers and membership rates.

The IMA has around 4,500 members, the LMS 2,500 and there are around 200 who are members of both. As discussed earlier in this report, the New Society offers major opportunities to expand membership from all sectors. The New Society with a comprehensive programme of activities will be able to recruit openly across mathematics and related academic departments to attract a higher proportion of mathematicians into membership. The merger of the two societies will allow for greater coherence in the promotion of mathematics and so improve the possibilities for recruitment of graduates, teachers and mathematicians in industry and commerce. The target of doubling membership to around 14,000 in five years is reasonable.

There is currently a significant difference in the membership subscription levels between the two societies – the current (2008) IMA Members' subscription is £64 while the LMS's is £43.50. In recent years the IMA has increased its subscription rate at around 3% p.a., the LMS by 10% (reflecting the costs of the services provided to its members, as required by charity law). The subscription rates for the New Society will be set somewhere between the two levels, probably tending to the lower end initially (possibly as a part of transitional arrangements) subject to a calculation of the costs of the services that the New Society will provide to its members. The annual rate of increase should also be below the LMS's current increases, as the greater number of members and economies of scale come into operation.

³ The 'Yale' formula is the sum of 70% of the previous year's withdrawals from investments plus a fixed percentage (currently 3.5% as implemented by the LMS) of 30% of the total investment portfolio value.

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Assuming that the rate is set at the lower end, this would lead to around a 10% drop in the combined subscription income, compared with the two societies separately. Given that membership income will constitute less than 20% of the total income (assuming no increase in membership) then, at worst, a levelling of the subscription rates towards the lower end (the LMS rates) will result in, at worst, less than a 2% drop in total income. That is an acceptable price to pay. Our expectation, however, is that this drop will be more than compensated by increases in membership numbers. If the doubling in membership is achieved, then this would constitute an increase (before additional expenditure) in total income of around 12%.

As now, concessions to reduce subscription rates will be available at Council's discretion for Members and Associate Members in particular circumstances, such as students in full-time education or those unemployed.

9.6 Other income

The New Society will have several other income sources and revenue-generating activities to draw on and develop.

Conference facilities

The New Society will have two premises, in Russell Square, London, and in Southend-on-Sea. Particularly in London, the provision of conference facilities is a profitable activity, and the LMS invested substantially a few years ago to create a suite of integrated conference rooms in its lower ground floor. This business has developed well and now covers its costs and is beginning to bring a real return. Especially in the light of uncertainties in publishing and investment income, this new business source should be maintained and explored further by the New Society.

Conference services

The IMA provides a service to conference organizers, removing from them the burden of the administration and financial management of organizing meetings. The New Society would offer services as directed by Council. These conference services have the potential to provide a revenue stream from larger conferences with a high proportion of participants ready and able to pay 'commercial' registration fees. Reduced fees would be provided to academics, by providing grants to academics attending conferences (including those organized by the New Society). It is not suggested that traditional academic conferences should be seen as a source of revenue.

Tenancies

The LMS currently lets out the upper floors of De Morgan House to other societies and groups – the Lighthill Institute for Mathematical Sciences (UCL), the Institution of Highway Incorporated Engineers and the IMA. This brings in (with VAT and service charges) some £66k annually. As it is likely that the New Society will continue to have more space in De Morgan House than it requires for its own activities, then it should continue to use the spare capacity to create income from paying tenants.

Grants, contracts and sponsorship

The New Society will seek funders for some of the activities it wishes to undertake. The LMS currently has a contract with EPSRC to provide short instructional courses for postgraduate students, and grants from the Nuffield Foundation and Leverhulme Trust to support an IMU scheme providing mentoring collaborations between the UK and Africa.

A single society will have more opportunities to obtain leverage to support mathematics. It is noticeable that, where the societies have worked together, and with others, to promote mathematics, they have been outstandingly successful in obtaining funding. For example through the **more maths grads** project they have been able to build on a figure of £30,000 to launch a project of £3.3M that has been funded by HEFCE.

9.7 New income streams

Given the uncertainty related to long-term publishing revenue it is important that new sources of revenue should be evaluated by the New Society. The New Society will look for services where it can add value to generate an income to the benefit of mathematics.

The LMS and IMA have been fortunate in receiving donations and legacies in the past. While neither provides an assured income stream, they can provide valuable support especially for the core activities of the New

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Society. Effort will be directed to increasing the support for the New Society from charitable and philanthropic sources, legacies and donations.

9.8 Expenditure

The two societies' expenditures (including relevant support costs) are:

	IMA <i>1 Jan–31 Dec 2007</i>	LMS <i>1 Sept 2006–31 July 2007</i>
Conference facilities		£115,174
Conferences	£197,829	
Tenancies		£42,284
Investment mgt		£38,764
Membership	£89,609	
<i>Mathematics Today</i>	£133,610	
Membership (inc <i>Newsletter</i>)		£112,606
Professional development	£15,901	
Branches and groups	£20,104	
Society meetings and Regional workshops		£54,714
Women in Maths		£2,598
Links with other maths bodies		£29,220
Exchanges		£1,811
Support for the maths community		£10,194
Library		£2,618
Prizes		£17,129
Annual dinner		£7,202
Grants	£29,469	£321,401
Short courses		£72,705
Durham Symposia		£719
LMS workshops, Computer Science interface		£1,439
Publishing (see footnote 2)	£53,383	£517,032
Promoting Mathematics	£58,421	
Influencing Government, funding agencies, CMS		£61,367
Education	£55,181	£9,474
Popular Lectures		£24,639
Council & Governance	£86,438	£97,765
Total	£686,562	£1,540,854

Grants

The Learned Activities Fund (see Chapter 2) will ring-fence some of the New Society's investments such that the New Society can maintain grant giving at a minimum level of £300k p.a., comparable with the current rate. Income from this Fund will not be the only source of grants; this base level will be augmented by other sources of income.

Conferences and Society Meetings

As described in Chapter 3, the New Society will inherit three types of activities to support conferences and meetings: grants to support conferences organized and run by other people or organizations, conferences and Society meetings run by the New Society itself, for its members and others, and conference services to assist organizers in running a conference.

These three forms of support are complementary – each has a role in providing support to enable conferences and meetings to occur to the benefit of mathematics. The New Society will continue to support conferences and meetings through the most appropriate schemes and mechanisms. In many cases conferences and meetings will be associated with both income and expenditure. All aspects of conference pricing will be set by the Council of the New Society.

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Services to mathematics

All existing services to mathematics will be continued. There will be increased efficiency and more effective use of resources in areas of overlapping activity. This area includes lobbying ministers, educational work, and the activities of the Mathematics Promotion Unit.

Services to members

All existing services to members will be continued broadly as at present although there would be some consolidation of services (e.g. *Mathematics Today* and the *LMS Newsletter*). To maintain charitable status it will be necessary that the costs of services to members do not exceed the income from members' subscriptions.

Staff costs

It is not the purpose of the merger to make savings on staff costs, but to use the two societies' resources more effectively. The intention will be to do more and to do it more effectively, with approximately the same level of expenditure on staff and overheads. There will be opportunities for reorganization, but the process of adjustment need not happen at the commercially-driven pace that is common in the business world. These matters are addressed more fully in Chapter 10.

Administration costs

The new structure will provide a more effective use of members' time, amalgamating existing committees in the two existing societies with overlapping remits. There will also be a reduction in the number of Council and committee meetings. The New Society will have fewer Council members than the present total, and fewer elected officers. Administration costs will be used more effectively, including by cutting the not insignificant overhead associated with coordination and communication between the two societies and dual representation on bodies such as CMS and Science Council. Initially the transition will increase pressure on administration, although in time this will reduce significantly.

9.9 Assets, capital and reserves

The New Society will take on the assets of the two societies. These have been built up over decades mainly from surpluses produced by publishing, and by bequests. The IMA owns Catherine Richards House in Southend and maintains operating reserves equivalent to approximately one year's turnover. The LMS owns a long lease on De Morgan House and has substantial reserves.

Each society occupies one building. The LMS leases De Morgan House, 57-58 Russell Square, London, WC1. The 120-year lease was purchased in 1998 at a cost of £1.8M. The IMA owns the freehold of Catherine Richards House, 16 Nelson Street, Southend-on-Sea. The building was purchased in 1990 at a cost of £188k. In the formation of the New Society both buildings will have to be revalued.

Both buildings will be transferred to and retained by the New Society. Over time, the New Society will have the opportunity to consider how best to divide its activities between the two locations, distinguishing between activities that benefit from being located in central London, despite the higher overheads, and those that would be more sensibly located in Southend. It will be necessary to balance operational needs, the availability of suitable staff, and different levels of rent that would be generated by letting spare space in the two locations.

The LMS held investments valued at £13M at 31 July 2007. It has designated reserves to meet potential costs relating to the building, publishing and unclaimed grant awards. The main part of its reserves, however, comprise a General Fund that is invested to provide income for activities (particularly the grant schemes) and to act as a 'free reserve' to provide adequate working capital for the New Society to operate effectively and efficiently and to be used in pursuit of the society's objectives as Council may from time to time decide.

Based on the 2006/07 accounts of each society, a tentative financial model for the New Society has been put together and is shown at the end of this Chapter. Great care should be taken in interpreting this model as it necessarily has been unable to take account of all the accounting differences and nuances of the two societies' funds and activities.

9.10 Accounting practices

As charities, both societies report their accounts to a common standard, SORP 2005, defined by the Charity Commission. However, within the present format of the accounts of the two societies there are many

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differences in the detail of the financial reporting, for instance in the way that support costs and overheads are calculated and apportioned, policies on depreciation, etc.

Both societies have been assessed by HM Revenue and Customs (or its predecessor) and pay VAT on a 'partial exemption' basis. The LMS elected to pay VAT on De Morgan House while the IMA did not do so on Catherine Richards House. A VAT expert will advise on the preferred approach to VAT in the New Society.

9.11 The Learned Activities Fund (The De Morgan Fund)

The Learned Activities Fund (the De Morgan Fund) will be established and ring-fenced as a Designated Fund with a value of £8.6M. This will give a yield (under the 'Yale' model – see section 9.4) of around £300k annually to support the direct costs of grants and other learned activities of the New Society with comparable objectives to those currently supported by the LMS. It is expected that the activities supported by the Fund would represent the minimum level of learned activities supported by the New Society.

As a Designated Fund it will be under the direct control of Council, but may be changed without recourse to the Charity Commission, as would be the case for a Restricted Fund. As described in Chapter 2, changes to the definition or management of the De Morgan Fund will be subject to a two-thirds majority vote at both a Council meeting and at a General Meeting. The conditions on its use will be the subject of an exchange of memoranda between the two societies in advance of the merger.

9.12 A financial model of a New Society

The purpose of the charts on page 44 is to show the scale of finances, revenues and expenditures from both societies and how they would relate to the structure, Constituencies and activities of the New Society. These data must not be used for any other purpose. These illustrative figures are built up from the LMS final accounts for the period 1 September 2006 to 31 July 2007 (adjusted to reflect a 12-month period) and the IMA final accounts for the period 1 January 2007 to 31 December 2007. No allowance has been made from economies through, for instance, the need for only one Council.

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	Unrestricted Funds £'000	Restricted Funds £'000	Total Funds £'000
Incoming resources			
Gifts, Donations, Legacies, Appeal Fund	25	0	25
Conference facilities	102	0	102
Advertising in Newsletter	11	0	11
Investment income/interest	426	12	438
Membership subscriptions & entrance fees	329	0	329
Publications income and Institutional subscriptions	1,574	0	1,574
Conference and symposium fees	157	0	157
Grants and contracts (inc careers from maths project)	214	62	276
Miscellaneous/Sundry income, Gift Aid	2	0	2
Total Incoming Resources	£2,840	£74	£2,914
Resources expended			
Learned Activities Constituency: Meetings, lectures and conferences; Grants; Donations; International relations; Library	636	10	646
Learned Publications: Journals, books and other publications	570	0	570
Professional Activities Constituency: Professional development; short courses	29	46	75
Education Constituency: Education activities; small grants; schools/public lectures	96	0	96
External Relations Constituency: maths promotion, media relations, CMS, influencing decision-makers, relations with Government	130	0	130
Supporting Structures: Membership; communications with members; members' newsletters; Branches and groups; Prizes	402	8	410
Cost of generating funds: DMH Conference facilities; services for tenants; investment management	196	0	196
Governance	184	0	184
Total resources expended	£2,243	£64	£2,307
Net incoming (outgoing) resources	£597	£10	£607

	£'000
Assets	
Investments	11,496
Buildings (freehold, leasehold), furniture, fittings and equipment	1,987
Debtors, Stock	355
Cash and Bank	835
Creditors, deferred income	-815
	13,858
Restricted	209
Unrestricted	1,708
Unrestricted (Designated, including the De Morgan Fund)	11,941
	13,858

10: Administration

10.1 Introduction

In the original Frameworks Study Initiative report the following comments were made about the administrative benefits from the creation of a single, unified society

There would be improvements in terms of operational efficiency, which would permit the combined resources to be used to better effect in pursuit of our common charitable objectives. By avoiding unnecessary duplication of effort, the combined secretariat could be used more effectively, which would allow the work of the combined society to expand accordingly. A combined staff, running one, not two, organizations, would provide opportunities for balancing loads, combining activity support, and providing the flexibility that neither administration can currently offer. Greater resilience could be achieved by having key roles shared between senior and junior staff. It is likely that the current complement of staff would be required for the foreseeable future but that the various roles would evolve and eventually be redefined.

It is not the aim to make savings on staff costs, and care would be needed not to lose staff in the transitional period. The intention would be to do more and to do it more effectively, with roughly the same level of spending. There would be opportunities for reorganization, but the process of merger need not happen at the commercially-driven pace that is common in the business world. Whilst the unique contribution and service of the current Executive Director and Executive Secretary would remain vital, their specific roles and relationship would have to be clarified at an early stage.

One immediate impact would be a reduction in the number of Council and committee meetings. A combined society would have fewer Council members than the present total, and fewer elected officers. The combined society would be able to speak clearly and confidently as the sole representative of professional and academic mathematicians in the UK. Although initially the transition would increase pressure on the administration, in time this should be reduced significantly. At the administrative and business level, activities would carry on with little significant change for an appropriate period. The rate at which changes take place would depend on the willingness of staff to adapt, and possibly their willingness to relocate. In particular, in publications, one could see the combined society as having a 'mixed portfolio' of activities, which is the current position in the LMS.

In due course, De Morgan House (DMH) and Catherine Richards House (CRH) could be used more efficiently, with DMH as the 'London office' housing staff with a strategic role, and CRH in Southend housing those in the service roles. Because of its London location, DMH is particularly convenient for meetings, and it would be wise to realise its full potential to accommodate mathematical activities. Unused space in London should be rented out on a commercial basis. In dividing functions between Southend and London, care would be taken to minimize the need for staff to travel between the two locations.

At the senior level, it is likely that there would be a difficult transition. The senior management teams in both societies already carry heavy loads, and a process of transition would add to this. The principal issues would be the eventual allocation of managerial responsibility for the divisions under Council, and reporting lines. In the long-term, it would be necessary to ensure that the Chief Executive is supported by a senior management team that reflects the divisional structure of the society.

More detailed examination of the structure, activities and management of the New Society do not depart substantively from these views.

In this report it is not possible or intended to provide a detailed solution to every issue relating to the staff and administration of the New Society. It does aim to address the main aspects to a level that identifies the major issues and difficulties that are likely to occur, and to outline possible solutions.

10.2 Legal aspects relating to the two societies' staff

The winding up of the two societies which are the employers of the current staff, and the creation of a New Society which would become the employer and take on the activities of the old societies, means that matters relating to the employment of staff will be covered by the Transfer of Undertakings (Protection of Employment)

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Regulations (TUPE). This provides protection to staff through the transfer and lays down the processes which the societies must follow in the lead-up to a merger.

10.3 The principles to be adopted in dealing with staff matters

The Councils have confirmed a set of principles that will determine the process and targets for the move to and creation of an appropriate secretariat for the New Society.

- The ultimate aim is to establish a New Society which, through greater scale of operation and better use of its buildings and staff, can increase its activities in support of mathematics. Reductions in staff cost are not an objective of the merger, but improvements in the efficient and effective use of the staff in place, and the ability to strengthen support in some areas of activity, will be an outcome.
- The current staff members in both societies have demonstrated outstanding commitment and loyalty to the societies and their objectives; they have a 'corporate memory', skills and experience that will be essential in the transition to and establishment of the New Society.
- All of the existing administrative functions of the two societies will be continued in the New Society; however some reorganization will be needed. Appropriate support, development and training must be provided to help staff members through the transition period, to promote retention and to assist them to adapt flexibly to fit their skills and experience to the needs of the New Society.
- The move to a new secretariat will not be made quickly and time must be allowed in the lead up to the creation of the New Society and the first years of the transition for staff members to adapt to the changes and to allow for appropriate changes in staff structures to take place smoothly.
- Initially, both premises in Southend and Russell Square would be retained but over time, the New Society will have the opportunity to consider how best to divide its activities between the two locations.

These factors and requirements will be a significant determinant in the speed at which a move to the new structure can be achieved. During that period there will be additional pressures on all staff, not least those at the top, both senior staff members and Honorary Officers.

10.4 Administrative structures

The staff structures within the two societies are comparable in size and nature, although there is no obvious one-to-one relationship in job structure or levels of staff. Both organizations have very flat structures with considerable numbers of staff reporting direct to the Executive Director/Executive Secretary. These organizational arrangements are not ideal now and a larger body would certainly need to move to a more layered structure. This might usefully mirror the constitutional structure based on a set of core functions (Council, Finance, HR, membership, etc) and the four Activity Constituencies – Learned Activities, Professional Activities, Education, and External Relations (see chart in Chapter 2). The allocation of current activities to the relevant sections and the consideration of new activities to be undertaken will need to be decided once any plans for merger are agreed.

There will be no need immediately to reorganize the administration across the two locations but in time rationalisation will and should take place. In general, those activities that require and can justify the additional costs of being based in London will tend to be based there, while those that can benefit from the more modest costs and convenience of a location away from London will tend to be based in Southend.

The New Society will have roles for experienced and qualified staff to give strategic and administrative leads in the broad activity areas, increasingly working proactively to advise the committees and to operate professionally, including with external bodies, in their areas, and providing the support functions efficiently and effectively. Appropriate staff guidance, training and development must be provided.

The secretariat will provide the support for all activities in the New Society, to ensure effectiveness, efficiency and coordination. This includes the operation of the Council and support of the President and other Officers, in particular providing management of their commitments on behalf of the New Society. It is recognised, however, that different Officers will have different amounts of support available to them in their own organization, where it may be more effective to complement that local support. Flexibility must be allowed in the arrangements for supporting Officers, while recognising that effectiveness of the New Society's operation must be a prime objective.

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The Charter of the New Society will include the provision to enable it to make payments to, and in support of, Officers of the Society.

10.5 Staff conditions and benefits

There are differences in the contractual conditions of staff, in the remuneration and reward systems, and in the staff benefits. Professional advice will be needed to achieve harmonisation, but all staff must be assured that they will not lose benefits currently enjoyed.

Notably, the pension schemes run by the two societies are very different. The IMA contributes to Individual Pension Plans of staff, the LMS funds a contributory final salary pension scheme (USS) for all staff. Harmonisation may incur a cost for the Societies that must be allowed for in looking at the finances of the New Society.

10.6 Staff consultation

The societies will keep staff informed and involved throughout the process of considering a move to a single society and, if a decision to do so is made, in the subsequent planning of the transition to and establishment of the New Society. It is important to explain why the change is being contemplated, in particular that it is not a cost-cutting exercise but a wish to enable the New Society, on equivalent resources, to be more effective in its support for mathematics. They will be told how decisions will be made, including the opportunities for them to input into the decision-making process (as required by employment law). Staff must be reassured on the objectives of the exercise and the principles that will guide the definition of and transition to a new administrative structure.

Employment law and TUPE will together require that all staff will be treated equally and fairly, which reflects the societies' own intentions. If a decision is taken to go ahead with a merger, then the provisions of TUPE will apply and staff members will be consulted formally over the proposals, including the proposed administrative structure. TUPE lays down the way in which all matters relating to the transfer will take place, including:

- The definition of the circumstances within which TUPE applies
- The mechanism, nature and timing of informing and consulting with staff and representative bodies
- Preservation of benefits, terms and conditions, and continuity of employment of staff
- Prevention of dismissal of staff during the transfer except in specific circumstances
- The process of selecting and appointing staff and circumstances where there are not suitable placements for all staff

Legal advice will be taken and an HR consultant will be retained to help ensure that all parties' needs are considered and matters handled professionally and appropriately.

The stages in the process of informing and consulting staff are included in the chart at the end of Chapter 1.