



CAPG

Corporate Associates Presidential Group

**TOWARDS STATE OF THE ART IN
GEOTECHNICAL PRACTICE
A PROPOSAL BY CAPG**

NOVEMBER 2013



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1. INTRODUCTION

This document outlines a proposal by the CAPG for its activities from 2013 to 2017. Through this document, the CAPG seeks approval and support of the President and the Board of the ISSMGE for the plan's implementation.

The immediate past President of the ISSMGE, Prof Jean-Louis Briaud, set out the following objective for the CAPG – “the CAPG will assist in developing actions and activities that will enhance the commercial sector of the geotechnical profession”, (JLB 6 Dec 2010, Appendix A).

From its inaugural meeting in St Petersburg on 2nd July 2012, the CAPG has developed a number of initiatives, including a dedicated web page, promotional case histories and a small, core group of active CAs.

The CAPG now wishes to set itself a direction for 2013 to 2017 – to help the commercial sector of the geotechnical engineering profession towards state of the art in geotechnical practice.

Often in geotechnical engineering our commercial practice reverts to commonly accepted, albeit sometimes rudimentary approaches. The proposal contained here provides an overall plan for the CAPG, through the auspices of the ISSMGE, to help advance the geotechnical engineering profession towards state of the art in geotechnical practice. We consider that executing this plan will not only enhance the commercial sector of the geotechnical profession, but also improve and enhance the image and influence of the ISSMGE both within the geotechnical profession and the wider public.

2. OUR CHALLENGE

There are currently about 50 Corporate Associates (CAs) to the ISSMGE, including quite well known consultancies, manufacturers and contractors and also regional and specialised commercial organisations. By payment of their annual dues of \$1500, they have the opportunity to be recognised as Corporate Associates of ISSMGE, and this is a significant benefit. There are also many other benefits (see Appendix B), including being members of the CAPG. However, in our experience, many of the CAs are not interested in being active in the CAPG.

This is not a satisfactory state for achieving the CAPG objective. The financial support of the CA's is important to the ISSMGE budget and additionally, a very clever innovation on the part of the ISSMGE (i.e. formation of CAPG with direct access to the President) is potentially being wasted. A more attractive CAPG can also attract more commercial organisations to become CA members and support the ISSMGE.

This has led to the need for a clear positioning of the CAPG in the minds of CAs and others in the ISSMGE, with a strong and desirable product. This positioning should be something that CAs want to be part of or aspire to be part of.

3. AN IDEA FOR FUTURE DIRECTION

ISSMGE promotes geotechnical and geo environmental engineering, and these days much of what ISSMGE does orients itself around its prestigious and well-attended conferences and published proceedings. There is a strong academic bias, which attracts mainly researchers, lecturers and students to the conferences. Its technical committees are often strongly supported and as a body, ISSMGE can probably claim to have expertise (through its members and contributors) in all known areas of geotechnical engineering in the world. Advances in geotechnical engineering can be accessed through the various resources of the ISSMGE. It is a globally recognised and respected institution.



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Around the world, millions of dollars and large numbers of hours are being invested in research yearly in the universities and other institutions in geotechnical engineering. On the other hand, it will not have escaped anyone practicing in geotechnics that our (commercial) practice can revert to past experiences and be relatively unchanged over a period of time. Most recently, Professor Malcolm Bolton made a case of this in the latest (52nd) Rankine lecture, but this point has been made before by others. No doubt in many ways the practitioners are hampered from use of new practices and approaches due to unfamiliarity, cost, indifference, inertia, lack of client support, check reviewers not wishing to deviate from accepted practice and fear of the new for many, to name some aspects.

Given the guidance provided in Professor Briaud's document, that CAPG exists to enhance the commercial sector, we believe that the CAPG should take up this challenge as the commercial representative of the ISSMGE. We therefore put forward here our objective for 2013 to 2017 is to help advance the geotechnical engineering profession towards state of the art in geotechnical practice. We plan on using the goodwill, resources and capability of the ISSMGE and its members. This theme should guide our actions as CAPG in all respects.

The attraction for the Corporate Associates (CAs) is that by being part of an active and strongly positioned CAPG, they (the CAs) will be recognised as leaders of practicing in geotechnics and also have better access to information about implementation of new practices into commercial practice. New practices can and should cover all aspects of geotechnical engineering, including planning, site investigations, testing, analysis, design, and construction methodologies and monitoring. CAPG, through the auspices of the ISSMGE will provide opportunities for CA members to showcase leading practice based on new research and innovation.

The attraction for the academics will be that CAPG members recognise and acknowledge that in many areas of the (commercial) practice of geotechnical engineering, improvements can and should be made and the academics can have a significant role in assisting. Particular attention will be made to where there has been a strong academic/ practitioner collaboration resulting in significant positive shift in practice (not theory).

The attraction for the ISSMGE is that through this work the CAPG is bringing together two key stake holder populations of the ISSMGE, that of academics and practitioners, for the direct benefit of the commercial sector of the geotechnical profession, and hence there will be greater credibility for the ISSMGE within the commercial sector.

We would like to point out that the CAPG will only act as agents of change and not tackle the change ourselves – that is for the geotechnical profession as a whole. Our key tasks will be about bringing this about through appropriate encouragement and setting up clever mechanisms – be it by communication, promotion, prizes, or industry acknowledgements.

4. DETAILS OF THE PLAN

4.1. The key stakeholders

Sketch1 below is an attempt to explain how the various key stakeholders fit together.

The CAPG has a direct relationship to the President and through the President to the Board of the ISSMGE.

Clearly members of the CAPG are drawn from the CAs, and there will be very strong communication and interaction. However, the key idea is that they are not the primary audience we are trying to influence or work with.

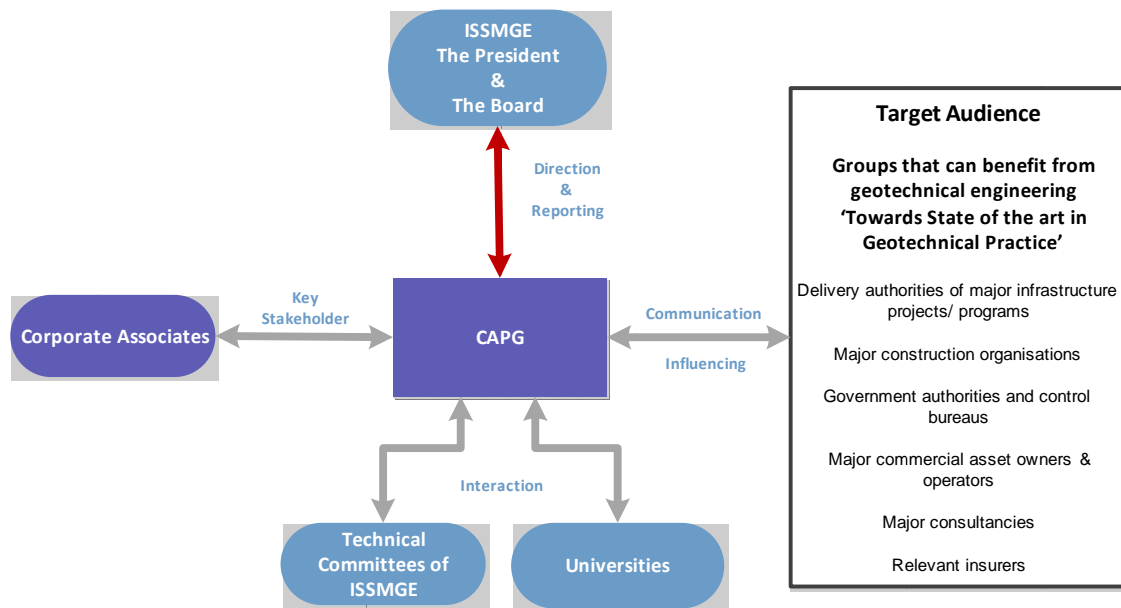
We also need to have interactions, probably more closely, with each of the technical committees as they determine the ISSMGE's position on technical matters.

Finally, it is imperative we maintain a strong interaction with the universities, and have value to them.

The sketch highlights the key body of people the CAPG wishes to communicate and influence, and groups them as the 'Target Audience'. The Target audience are the people who can/will derive direct benefit for our initiatives (we all derive benefits, but that can be indirect). The target audience comprises:

- Delivery authorities of major infrastructure projects/ programs
- Major construction organisations
- Government authorities and control bureaus
- Major commercial asset owners & Operators
- Major consultancies
- Relevant insurers

Key Stakeholders



Sketch 1 Key Stakeholders

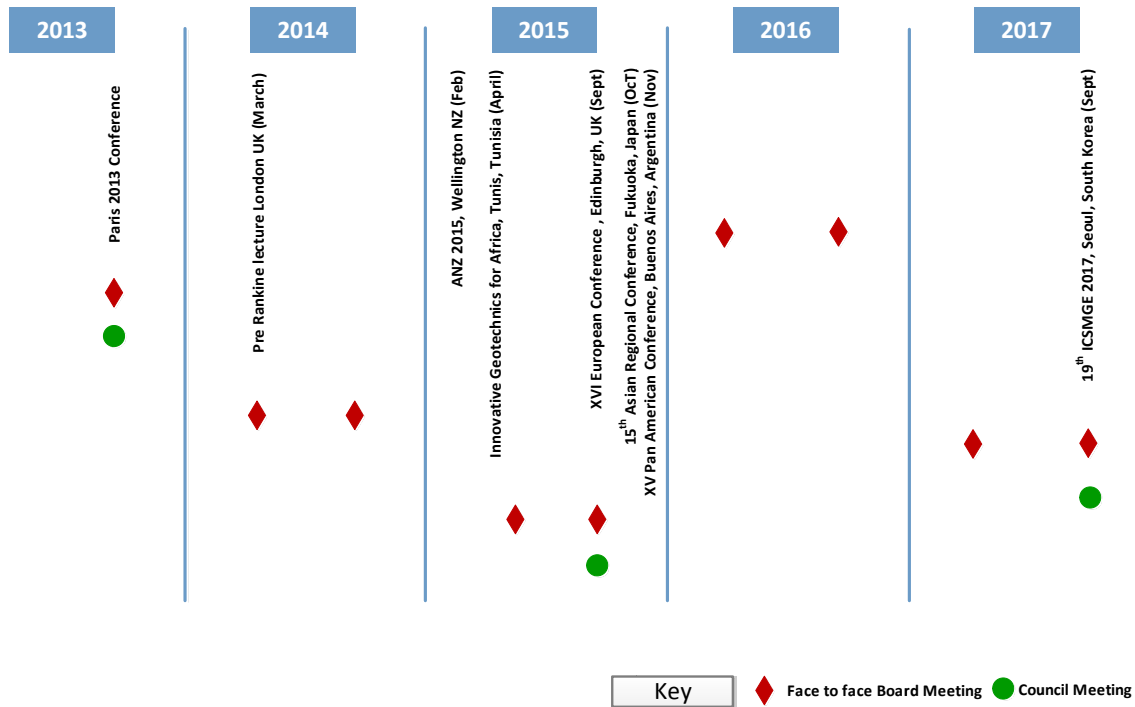
4.2. Calendar for Milestones

For the period 2013 to 2017 (till the Seoul conference in 2017), we have to chart a course of action.

Our action will be determined by the calendar of ISSMGE activities. As we understand, apart from the 4 yearly international conferences (Paris, Seoul etc), there will be in 2015, a series of regional conferences that have ISSMGE stamp on them (see Sketch 2 below).

There are normally two face to face Board meetings every year, and there will be one council meeting in 2015 and one in Seoul in 2017.

Calendar for Milestone Achievements



Sketch 2 Calendar for Milestone Achievements

4.3. Key activities for Milestone achievements

In Sketch 3, we have outlined our key activities from 2013 to 2017, year by year, which then become the way in which we propose to execute our plan. We believe these activities are possible to be achieved by the CAPG and the wider group of CAs with the assistance of the ISSMGE.

Key Activities for Milestone Achievements

	2013	2014	2015	2016	2017
CAPG Core Team Activity	<ul style="list-style-type: none"> Finalise plan. Get approval for our plan from the President and the Board. 	<ul style="list-style-type: none"> Hold regular (6 weekly) progress meetings. Identify through our own resources and with the ISSMGE's and CAs assistance at least 30 organisations in the world that are most appropriate for the first stage of targeting our activities (i.e. <i>Target Audience</i>). 	<ul style="list-style-type: none"> Hold regular (6 weekly) progress meetings. Increase engagement by CA's in the plan. Identify sponsors and spokespersons to lead communication and surveys with each target audience. 	<ul style="list-style-type: none"> Hold regular (6 weekly) progress meetings. Increase engagement by CA's in the plan. Communicate progress of the plan to Vice Presidents. 	<ul style="list-style-type: none"> Hold regular (6 weekly) progress meetings. Prepare and facilitate a Plenary session in Seoul 2017 to address 'Towards State of the art in Geotechnical Practice'
Work to be done for the plan		<ul style="list-style-type: none"> Categorise various areas of geotechnical and geo-environmental practices and develop a CAPG view of both state of art (SOA) and state of practice (SOP). Select key areas of geotechnical and geo-environmental practices for development by CAPG. CAPG, with assistance of ISSMGE, CA's, technical committees and interested universities develop a survey questionnaire. 	<ul style="list-style-type: none"> Conduct surveys with the Target Audience on 'Towards State of the art in Geotechnical Practice'. Where practicable hold face to face meetings to undertake the surveys. Promote findings of the surveys through various channels including the ISSMGE bulletin, and regional conferences of the ISSMGE. With support of Vice Presidents develop plans for each region for 'Towards State of the art in Geotechnical Practice'. 	<ul style="list-style-type: none"> Advance regional initiatives 'Towards State of the art in Geotechnical Practice' Obtain submissions for presentation for the Seoul 2017 conference on 'Towards State of the art in Geotechnical Practice' 	

A key desired outcome is that through these activities we will endeavour to increase the number of CAs in the ISSMGE.

Sketch 3 Key Activity for Milestone Achievements

5. QUESTIONS & ANSWERS

Q1- We are trying to get the “target audience” to participate with our activities. I wonder how many of these organisations (government bodies, asset owners, etc.) are informed enough and passionate enough to get involved. Somehow, we need to get them to understand the benefits of using new practices in geotechnical investigations and design. Are they financial benefits? Better quality? Risk mitigation and management? How can we compare with the old and conventional technologies and quantify the benefits?

A1 – we have now included in Sketch 3, in 2014, some time to look at practices that are significantly lagging State of the Art (SOA). I suspect we should be able to make a case for financial and social benefit, and then select appropriate ‘target audience’ who should be receptive to our ideas. How well we select the target audience will determine how successful we are in this endeavour.

Q2 - I understand that the CAs are not the target audience. Nevertheless, we may need to encourage and incentivise them to use the new practices rather than conventional approaches which they are more comfortable with. Is it cost saving and hence more competitive, reliability in quality of data, peer pressure or as marketing tools to clients?

A2 – whilst CAs are not the target audience, the intention is they become a significant beneficiary of this activity. Through this work, CAs will be made aware of the target audience’s needs and wants as well as preferences on a real time basis, as well as the various opportunities available to them to meet the target audience needs. For most of the CAs the target audience is a sample of their immediate or end client population. The incentive for the CAs to adopt new practices will be the knowledge of potential change in attitudes in the target audience (as a result of this work) and ability to meet the new requirements of the target audience in a timely and appropriate way.

Q3 - I agree with you and Michael that many of the ideas developed in St Petersburg had similar intent as what we are doing now. This is a good start. It probably means that we should have the support of the CAs.

A3 – agreed.

Q4 - Who will do the work in this plan? Individual members of the CAs, including active participants in the CAPG, have a limited amount of time and may not wish to commit a great deal of time, however worthy the objective is.

A4 – this is indeed a most important consideration for the CAPG. We see the role of the CAPG as essentially a ‘board of directors’ setting direction, agreeing plans and working out ways of executing the work that has been agreed to. We will use our collective thinking, knowledge and most importantly networks of people and resources to develop and deliver the various tasks. This will take some thinking, and the plan allows for some flexibility of time to ensure the CAPG gets up to speed.

Q5 – state of the art practice often brings up images of the work being biased towards expensive/ mega projects or developments in highly developed areas of the world. Is that the intention and if not, how would this work in areas which are striving to develop infrastructure and built environments on a low affordability basis or with limited capability in engineering and construction practices.

A5 – it is not the intention to focus on only the high end of development. There are great examples, particularly in the field of medicine of break through innovations developed to treat patients in a very low cost basis and with high degree of geographic coverage as a result of real necessity. These innovations, interestingly enough, have in some cases then been reverse engineered to service more affluent societies for purposes not originally contemplated. This aspect of spanning the needs of the world, rather than a select grouping of activities or countries, is an important challenge for the ISSMGE and CAPG.

Q6 - I would add that we (i.e. CAPG) should work actively for recruiting new Corporate Associates to ISSMGE. This is a very important task.

A6 – yes, but I think it should be through the good work we do on driving this plan – the product. This would then enable the ISSMGE to be able to market the CA concept better to interested parties.

Q7 - We would probably need to think about the full structure of our Task Forces - who is doing what. Of course, Yuli’s and Sukumar’s TFs should continue their work + Task Force on recruiting new CAs.

A7 – to be discussed as we progress, and to tie in with the overall plan.



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Q8 - Since ISSMGE is a learned Society, we must develop policy of Key-note lectures/presentations at the Regional and International Conference (probably, another Task Force would be needed to achieve this).

A8 – agreed and to take note of.

Q9 - Finally, I suggest that we publish the Plan and Sketches on the CAPG Website, as soon as Roger accepts (modifies, corrects, etc..) it.

A9 – agreed.

Q10 - One of the options could be: write and present an article based on a real geotechnical case/claim in which misunderstandings between client and contractors lead to an avalanche of financial and contractual problems. Misunderstandings are often influenced by non-use or non-comprehension of new techniques, thoughts or insights that are not accepted yet by consultants and/or clients. Such article should be written by a team of academic and non-academic people who were involved in such a case. As a result such articles could change the mind of many people in such a way that it comes more and more to a “working together” than a “I will tell you what to do” when geotechnical problems occur on site.

A10 – looks quite interesting concept, and should be tackled as we start to work through the details. We should also look to involve the relevant technical committee in the ISSMGE, possibly forensic.

Q11 – What will become of proprietary information and technologies held by participating companies, including CAs? These ‘confidential’ practices can be very much the state of the art, but the relevant companies may not wish for their intellectual property to be used in any way for the benefit of others, in particular competitors.

A11 – it is not the intention of the CAPG (nor is it possible) for such confidential information and practices to be made openly available. That is simply the nature of accepted practice in any field and CAPG will have to be highly respectful of the rights of individual companies. On the other hand, these same companies might be interested in promoting their state of the art practices on the CAPG platform and within reason this can be accommodated, particularly for those companies that are also CAs of the ISSMGE.

6. CAPG CORE TEAM



Sukumar Pathmanandavel,
Group Executive Geotechnics and
Mining
Coffey, Australia (Chair)



Dr Michael Lisjuk,
Director for Development
NPO "Georeconstruction", Russia
(immediate past Chair)



Kim Chan,
Senior Principal and Service Line
Leader – Geotechnical Engineering
GHD, Australia



Gabriele Zapf,
Head of Geotechnics
Siemens AG, Germany



Chaido Doulala-Rigby (Yuli),
Chief Civil Engineer
Tensar International Ltd, United
Kingdom



Karel Allaert,
Senior Production Engineer
Jan De Nul, Belgium



Supported by Glenys Fogarty,
Group Marketing Manager
Geotechnics and Transportation
Coffey, Australia



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Appendix A - CAPG Charge

INTERNATIONAL SOCIETY FOR SOIL MECHANICS AND GEOTECHNICAL ENGINEERING

CORPORATE ASSOCIATES PRESIDENTIAL GROUP (CAPG)

The Corporate Associates Presidential Group (CAPG) will assist ISSMGE in developing actions and activities that will enhance the commercial sector of the geotechnical profession.

CAPG members will have direct access to the President of ISSMGE and will be able to have a direct impact on the future of the Society.

1. COMPOSITION

The CAPG will be composed of the following members

- a. The Chair
- b. The Vice Chair who will be the President of ISSMGE
- c. The Coordinator who will help the Chair run the CAPG
- d. The Members

The members will be the representatives of the Corporate Associates of ISSMGE. There will be one representative for each corporate associate. These representatives will be chosen by their company for a period of one year renewable. The ISSMGE Board will have the right to discontinue the membership of a CAPG member in case of poor performance.

2. TASK

The Task of the CAPG will be to advise the President on how ISSMGE can be more responsive to the needs of its corporate associates and how practitioners can become more involved in the affairs of ISSMGE. The activities of the ISSMGE Corporate Associates Presidential Group will be strongly guided by the CAPG itself in cooperation with the President. These activities may include:

- a. Review of the current status of practitioners' participation in ISSMGE activities such as Technical Committees and Conferences.
- b. Develop a list of ideas on how to increase the number of corporate associates in ISSMGE.
- c. Develop a list of ideas on how to get more practitioners to participate in ISSMGE activities.
- d. Prioritize the lists in b and c above and send proposals to the Board through the president to impact the society's future.

3. MEETINGS

The CAPG will meet at least 3 times a year by teleconference or in person. Because of the large number of members, it may be necessary to host these meetings by exchanging opinion by email. An in person meeting once a year is encouraged. Expenses for the meetings will be the responsibility of the Member's corporation.

4. EVALUATION

Each year the Chair of the CAPG will prepare a short report to brief the Board on the past activities of the committee and its future plans.

5. MEMBERS

- a. Chair: to be elected by the CAPG Members
- b. Coordinator: to be selected by the CAPG Members
- c. Members: Corporate associates: one person per company
- d. ISSMGE Board liaison: The President

6. CORPORATE ASSOCIATE MEMBERSHIP

To become a corporate associate, a company must contact the ISSMGE secretary general's office at issmge@city.ac.uk .JLB – 6Dec2010



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Appendix B - CA Benefits

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International Society for Soil Mechanics and Geotechnical Engineering

Société Internationale de Mécanique des Sols et de la Géotechnique

ISSMGE CORPORATE ASSOCIATES

The International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) is the preeminent professional body representing the interests and activities of Engineers, Academics, Contractors and other professionals that actively participate in geotechnical engineering. As a truly global organisation, ISSMGE provides a focus for professional leadership to more than 88 Member Societies and nearly 19000 individual members around the world.

A major part of the mission of ISSMGE is to foster the advancement of geotechnical knowledge and to encourage activities such as research, practice, exchange of knowledge, and education. To this end, ISSMGE is intent on narrowing the gap that exists between academia and practice in many parts of the world, and to increase the participation of industry in the activities of the Society via the participation of major geotechnical companies around the world. A Membership, Practitioner and Academic Committee (MPAC) has been formed to promote corporate participation, and one of their initiatives has been the introduction of corporate membership via the grade of Corporate Associate.

As a Corporate Associate, a company or organization will receive a number of benefits as follows:

1. Access to ISSMGE-sponsored conferences and symposia at reduced rates.
2. The opportunity to participate in the Technical Committees of ISSMGE.
3. An advertisement with logo and web address on a dedicated page in every issue of the ISSMGE Bulletin.
4. One dedicated page of the ISSMGE Bulletin at a reasonable interval (once a year?) for advertisement, recruiting, and other purposes within the mission of ISSMGE.
5. Access to technical reports and literature made available through ISSMGE.
6. The ability to network with other ISSMGE Associates.
7. The ability to include a news item regarding your company on the dedicated Corporate Associates' page.
8. An advertisement with logo and web address on a dedicated page on the ISSMGE web site.
9. Recognition in the opening ceremony speech by the ISSMGE President at ISSMGE-sponsored conferences that he or she attends.
10. Participation in the Corporate Associates Presidential Group (CAPG) which has direct access to the President lead by Sukumar Pathmanandavel (Sukumar@coffey.com)

The Corporate Associate fee is currently US\$1500 per year. To join as a Corporate Associate and for more information, please go to <http://www.issmge.org/web/page.aspx?refid=470> where you will find more information on this group. The Corporate Associate fees will be used primarily to fund learned and technical activities that reduce the practitioner-academic gap within the profession.

In addition to being a Corporate Associate, a company (or an individual) can donate directly to the ISSMGE Foundation which has been set up to assist the geotechnical profession in developing countries. More information on the Foundation can be found at (<http://www.issmge.org/web/page.aspx?refid=563>),

Jean Louis Briaud
President ISSMGE

Harry G. Poulos
Chairman MPAC