

IGS NEWS



NEWSLETTER OF THE INTERNATIONAL GEOSYNTHETICS SOCIETY

Dedicated to the scientific and engineering development of geotextiles, geomembranes, related products, and associated technologies

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Receiving Electronic Versions of *IGS News* Starting July 2001

We are pleased to announce that commencing in 2001, *IGS News*, the official Newsletter of our Society, will be available to all Individual, Corporate, and Student Members in electronic format. Many IGS Members have expressed interest in receiving *IGS News* electronically, and we are delighted to be able to comply with this request.

Each issue of the Newsletter, starting in July 2001, will be available on the IGS World Wide Web (WWW) site to download. The electronic file of the Newsletter will be in "pdf" format, which can be opened using the free software, Adobe Acrobat Reader.

The IGS Secretariat will contact all IGS Members by e-mail notifying them when the electronic version of the latest issue of the Newsletter is available on the IGS WWW site. With this issue of *IGS News* is an insert that we ask all Members to complete and fax or mail to the IGS Secretariat by 31 May 2001; please provide all of the requested information. On the form, we ask that you

indicate if you *do not* want to receive the Newsletter in hardcopy form.

Unless the IGS Secretariat is notified otherwise, each Member will receive the Newsletter in the traditional hardcopy format three times per year.

To ensure that all IGS Members are aware of the availability of the electronic version of *IGS News* on the IGS WWW site, we ask that each Chapter make an effort to inform their Members.

The production and mailing of the Newsletter in hardcopy format represents a significant annual expense for our Society. The cost saving of electronic delivery will be available to support other IGS programs.

Please note that electronic distribution is being offered to the Membership as an option – it is not mandatory. The Society is concerned that providing only electronic distribution would result in loss of impact of the printed copy and potential subsequent loss of interest in the Newsletter; thus, we are offering both formats.

An additional advantage of receiving the Newsletter electronically, particularly for those Members outside North America, is expedient access to Society information and events – past, present, and future.

Software Required for "pdf" Electronic Files

The software that enables viewing and printing of electronic "pdf" files is called Adobe Acrobat Reader and can be downloaded from the WWW for free. To download this software, go the following WWW site: <http://www.adobe.com/products/acrobat/readstep2.html>. Follow the instructions, i.e., follow Steps 1 to 3. If you have any questions, do not hesitate to contact Karina Labinaz, *IGS News*, Editor.

reported by Karina Labinaz
IGS News Editor

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Visit the IGS WWW site: <http://igs.rmc.ca>

The IGS Welcomes Three New Chapters in 2001!

Belgian, Peruvian, and Turkish Chapters

The IGS is delighted to report that we now have three new chapters: the Belgian, Peruvian, and Turkish Chapters. The formation of these new Chapters will expand the knowledge of geosynthetics and the Society in Europe, South America, and the Middle East.

The following are the Executive Members of the newly formed chapters.

Belgian Chapter

Chair: Christian Legrand

Vice-Chair: Frans DeMeerleer

Treasurer: Christine Soenen

Standardisation: Filip Heiremans

Training: Luc Courard

Insurance: Jean-Louis Hilde

Design: Eric Demanet

Secretariat:

Fred Foubert

c/o Centexbel

Montoyerstraat 24

B-1000 Brussels

BELGIUM

Tel: 32 2 287 08 03 or 30

Fax: 32 2 230 68 15

E-mail: fred.foubert@centexbel.be

Peruvian Chapter

President: Germán Vivar

Vice-Presidents:

Pier Giacchetti

César Zevallos

Secretary: Alberto Concha-Fernández

Treasurer: Virgilio de la Piedra

Secretariat:

c/o Germán Vivar

Geotecnia & Pavimentos E.I.R.L.

Calle Barcelona N°571

Lima 21, PERU

Tel: 51 1 4614673

Fax: 51 1 2612764

E-mail: gvivar@terra.com.pe

Turkish Chapter

President: Dr. Fazil Erol Guler

Vice-President: Dr. Bekir Cem Avci

Treasurer: Mr. Ismail Hakki Aksoy

Consultant: Ms. Yildiz Wasti

Secretariat:

Mr. Ali Riza Erman

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Istanbul, TURKEY

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A major objective of the IGS is to expand the geosynthetic industry. The formation of active chapters is a primary tool used by the IGS to promote industry growth; chapters can involve academia, commerce, and all components of the industry in chapter activities. In support of chapter activities to foster industry growth, the IGS provides financial incentives to the chapter and to those chapter members who teach geosynthetics.

Financial Support of IGS Chapters

It is to the economic advantage of the Membership to form and promote the growth of national chapters. Each chapter receives US\$45.00 per year from each IGS Member. Active chapters that assist the IGS, in administering the IGS programs to the Membership, retain US\$15.00 per Member to offset expenses. The IGS requires a minimum of 20 Members to form a chapter. Therefore, these 20 members generate US\$600.00 per year for the IGS and US\$300.00 per year for the chapter.

The IGS also provides each chapter with US\$100.00 per year per IGS Corporate Member for each Corporate Member based in the home country of the chapter. For example, a national chapter with three IGS Corporate Members based in the same country will receive US\$300.00 to fund activities each year. It is expected that the activities will benefit both the Chapter and the Corporate Members.

In addition, the Chapter may retain US\$500.00 of the US\$1,000.00 corporate membership dues in the first year of corporate membership for each new Corporate Member from their country. Please note that these programs apply only to IGS Corporate Members and do not apply to companies that belong to or support the Chapter directly.

Financial Expenditure by the IGS on Behalf of Education

Education is the second tool that the IGS uses to promote growth in the geosynthetics industry. The IGS provides educators who are Members of the IGS and who are teaching geosynthetics, with teaching tools that carry a significant monetary value. An educator who is nominated by the Chapter will receive the following: three IGS videos valued at US\$100.00 each, the two IGS CD-ROMs valued at US\$40.00 and the planned IGS lecture package. The lecture package will be offered on CD-ROM and consists of 20 lectures prepared by leading experts covering a wide range of geosynthetic applications. The lectures CD is valued at US\$50.00. Thus, one Chapter Member who is teaching geosynthetics is eligible to receive a US\$390.00 value in teaching materials.

For More Information on Chapter Formation

For details and information on the process of chapter formation please contact IGS Vice-President Daniele Cazzuffi, IGS President Richard Bathurst, or IGS Secretary Peter Stevenson. The IGS Secretariat will provide you with information and guidelines on chapter formation and bylaws. You can also visit the IGS WWW site, <http://igs.rmc.ca/igs/HowToFormAChapter.html> for more information.

*reported by Karina Labinaz,
IGS News Editor and
Peter Stevenson, IGS Secretary*

Call for Candidates for the IGS President, Vice-President, and IGS Council: Term 2002 to 2006

IGS Council Member Election

The IGS bylaws prescribe that up to half of the Council be elected every two years. Therefore, a postal ballot election will be held in May 2002 to elect eight Members to the IGS Council for a four-year term, starting in July 2002.

The eight IGS Council Members, whose term of office expires in June 2002, are:

- J. Collin (USA)
- S.P. Corbet (United Kingdom)
- Ph. Delmas (France)
- J.-P. Gourc (France)
- G. Heerten (Germany)
- P. Rimoldi (Italy)
- P.E. Stevenson (USA)
- F. Tatsuoka (Japan)

The IGS bylaws stipulate that a Council Member may serve two consecutive terms; hence, Dr. Ph. Delmas and Mr. P.E. Stevenson are eligible for re-election. They will have completed one, four-year term as Council Members by June 2002. Dr. Ph. Delmas and Mr. P.E. Stevenson have declared their intent to stand for re-election.

The IGS encourages any IGS Member, who is able to attend all IGS Council meetings, to consider standing for one of the Council positions. It is important that all geographical regions are represented on the Council and that its Members reflect the scope of the geosynthetics discipline.

IGS President and Vice-President Elections

The next IGS President and Vice-President will be elected at the Ordinary General Assembly to be held at the *Seventh International Conference on Geosynthetics (7th ICG)* in Nice, France, 22 to 27 September 2002.

According to the bylaws of the IGS, Prof. R.J. Bathurst will become an Officer of the IGS in his capacity as Immediate Past-President of the IGS following the Ordinary General Assembly. The Secretary and Treasurer, who are the other two officers of the IGS, will be elected by the new IGS Council from amongst its Members at a meeting of the IGS Council that will be held in Nice, France, after the Ordinary General Assembly. The election of the IGS President, Vice-President, Secretary, Treasurer, and the eight new Council Members and the appointment of the Immediate Past-President will be for a four-year period.

Information/Instructions for All Candidates

Under the bylaws of the IGS, only IGS Members are eligible for these positions. Candidates must be able to travel to and attend the IGS Council meetings, which are held once a year. Meetings of the IGS Council are generally held in conjunction with international and regional conferences.

A signed letter of application

together with a biographical note (not exceeding 12 lines) and a photograph should reach the IGS Secretary no later than 31 January 2002. Candidates must strictly adhere to the 12 line limit to ensure equal presentation space for all candidates. In their letter to the IGS Secretary, candidates must clearly identify their country of residence and position for which they are seeking election. IGS Members may run for more than one position, in which case a separate statement for each position is required.

Biographical notes, which do not exceed 12 lines, will be published in the March 2002 issue of *IGS News* (with the photo), on the IGS World Wide Web home page, and in the postal-ballot package sent to each IGS Member.

The next IGS Council meeting, following the election of new Council Members, will be held in conjunction with the *7th ICG*, 22 to 27 September 2002. At least three additional meetings will be held for those Members whose terms expire in 2006. Typically, these meetings are held in Asia, Europe, and North America.

Should you need further information, please contact the Secretary of the IGS, Mr. P. Stevenson, or the IGS President, Prof. R.J. Bathurst (see contact information on p. 19).

*reported by Karina Labinaz
IGS News Editor*

IGS Awards: Call for Nominations 1998 to 2001 Nominations due 30 July 2002

IGS Awards will be granted in 2002 to individuals or groups of individuals who have made an outstanding contribution to the development and use of geotextiles, geomembranes, related products, or associated technologies through their scientific and technological achievements.

The Awards recognise the achievements completed and/or the validity of

which has been demonstrated during a four-year period preceding the year of the Award (i.e., 1998 through 2001 inclusive). The awards will be presented at the IGS General Assembly to be held during the *7th International Conference on Geosynthetics*, 22 to 27 September 2001 in Nice, France.

The winning entries will also be

featured at the IGS booth at any conference held under the auspices of the IGS and will be publicised in *IGS News*, in a special press release on the IGS World Wide Web home page, and in other publications.

Nominations must be received by the Secretary of the IGS no later than 30 July 2002.

The Two IGS Awards

The Young IGS Member Award

This Award is for IGS Members who are less than 36 years of age on 31 December 2001.

The IGS Award

A maximum of five IGS Awards will be granted. Each award will consist of a specially commissioned medal and a diploma.

Candidates

At least one candidate must be a Member of the IGS. Each entry is restricted to a maximum of four persons. All IGS Members are eligible with the exception of the President of the IGS and the Members of the Awards Committee.

In the case of a group submission to the Young IGS Member Achievement Award all members of the group must satisfy the age requirement. Any individual or group that is a candidate for the Young IGS Member Achievement Award is automatically considered for both award categories (unless requested otherwise by the candidate). However, a candidate may only receive one award for the 1998 to 2001 period.

Nominations

Candidate nominations must be typed in English on plain paper (i.e., not letterhead paper) and submitted to the IGS Secretariat (see address on page 19). The nomination should include:

- a clear statement of the contribution of the candidate that is to be considered (e.g., if the contribution is a product, provide a clear definition of the product; if it is a paper(s) or book, provide a full reference for the paper(s)/book; if it is a report, provide a full reference for the report; if it is a construction method, provide a clear description of the method and any references, etc.) and;
- a statement indicating the originality and significance of the candidate's contribution to the discipline (i.e., in the field of geotextiles, geomembranes, related products and/or associated technologies).

Nominations may be made by any IGS Member except for Members of the Awards Committee. Under the IGS Awards rules any IGS Member can nominate himself/herself for any award. The Publications Committee, Education Committee, Corporate Mem-

bers Committee, and IGS Chapters will be invited to make nominations.

Candidates who have been nominated will be contacted by the IGS Secretary. Candidates will be asked to agree to stand for an award and will be required to submit materials as directed by the Awards Committee. All nominations and award entries will be carried out in the strictest confidence by the IGS Secretary and the Awards Committee.

IGS Awards Committee

The Awards Committee will comprise five regular members including the Chair (all Members will be appointed by the IGS Officers). The Members will be selected so as to represent a broad cross section of geosynthetic-related technologies and experience. The IGS Secretary will attend all meetings of the Awards Committee as an observer and coordinator.

Additional Information

The full text of the IGS Awards rules can be obtained by contacting the IGS Secretary, Mr. Peter Stevenson, at the address given on p. 19 of this issue of *IGS News*.

*reported by Karina Labinaz
IGS News Editor*

IGS Student Awards: 2001 to 2002

The IGS Student Awards will continue its successful inauguration with the second Award period of 2001 to 2002. The Awards will be assigned in the year 2002, and all successful candidates will attend the *Seventh International Conference on Geosynthetics* (Nice, France, 22 to 27 September 2002).

The IGS Student Award was established to disseminate knowledge and to improve communication and understanding of geotextiles, geomembranes, related products, and associated technologies among young geotechnical and geoenvironmental student engineers around the world.

An IGS Student Award will consist of a cheque of US\$1,000 for each winner. This award amount must be used to

cover conference participation costs (i.e., registration fee, travel, accommodation, etc.).

An IGS Student Award will be assigned to only one student per Chapter; the selected student should be a M.Sc. or Ph.D. student. Students must be no older than 35 in the year the award is granted.

To ensure student representatives from each chapter participate in the program to the fullest extent possible the chapters must accomplish the following:

- Chapters must hold a contest or conduct a nomination process to select the student candidate to represent them.
- Chapters must notify the IGS of the name of the student selected by 12

August 2002. The IGS will transfer funds to the student immediately upon receipt of chapter notification.

To insure the maximum benefit to the student, the organisers of the conferences must:

- Provide a copy of the proceedings to the student.
- Provide admission to the sessions for the student.
- Organise a recognition event for the students.

Conference organisers are not required to provide the students with admission to social events.

*reported by Karina Labinaz
IGS News Editor*

S.P. Kaushish, India Chapter of IGS Co-opted to IGS Council and the Asian Activities Committee

At the IGS Council meeting held in Bologna, Italy in October 2000, it was agreed that representation of the India IGS Chapter on IGS Council was needed to ensure that this Chapter and Asia in general are full partners in our international Society.

The India Chapter was invited to recommend a suitable individual. As a result of this consultation, I am

delighted to report that Mr. S.P. Kaushish has been co-opted to Council for the four-year term 2000 to 2004.

Mr. Kaushish is the Member Secretary of the IGS India Chapter and in his dual capacity will provide a direct link between IGS Council and the Society's India Members. In addition, the IGS Officers, on behalf of the IGS Council, have appointed Mr. Kaushish to

become a Member-at-large of the Asian Activities Committee, which is charged with co-ordinating IGS activities in Asia. Mr. Kaushish joins Dr. M. Kamon (Chair), Dr. John Cowland (Secretary), and Dr. Eun-Soo Lee (Member-at-large) on this Committee.

*reported by Richard J. Bathurst
IGS President*

IGS News Chapter Correspondents

At meetings of the IGS Council and Officers in Bologna, Italy in October of this year it was agreed that greater input from the chapters and regions was desirable in order to broaden the content of the Society's newsletter, *IGS News*.

To date, chapter contributions have been restricted largely to annual reports of the activities of the chapters. While this is important information and is consistent with the mandate of the Newsletter, it would be of interest to our readership to also read more articles devoted to brief summaries of case studies or projects highlighting the

important role of geosynthetics in geotechnical and geoenvironmental works in their country.

To achieve this goal, on 9 December 2000, a memorandum was e-mailed to all IGS Chapter Presidents and Secretaries requesting that their chapter appoint a chapter member to become an *IGS News* Chapter Correspondent. This individual will be responsible to submit on a regular basis potential articles to Ms. Karina Labinaz (*IGS News* Editor) for inclusion in *IGS News*.

The IGS Secretariat has received the names of several chapter *IGS News* Correspondents, but there are several

chapters who have yet to identify their Correspondent. I ask that you send the IGS Secretary (igssec@aol.com) with a copy to Ms. Labinaz (labinaz-k@rmc.ca) the name and contact information of your designated correspondent as soon as possible.

The names, chapter, and e-mail of each *IGS News* Chapter Correspondent will be listed on the inside back cover of *IGS News*, starting with this issue of the Newsletter.

*reported by Richard Bathurst
IGS President*

EuroGeo 2 in Bologna, Italy – An International Success!

by Ing. Daniele Cazzuffi

IGS Vice-President and Chair of EuroGeo 2 Organising Committee

Foreword

The Italian Geotechnical Society-the Italian Chapter of the International Geosynthetics Society (AGI-IGS) had the honour to host *EuroGeo 2*, the *Second European Geosynthetics Conference and Exhibition* (Bologna, Italy, 15 to 18 October 2000).

The Conference took place four years after *EuroGeo 1*, which was held in Maastricht, the Netherlands, in 1996 and midway between the two International Conferences on Geosynthetics (Atlanta, USA, 1998 and Nice, France, 2002).

EuroGeo 2 was organised by the

Italian Geotechnical Society-Italian Chapter of the IGS (AGI-IGS), with the support of *BolognaFiere-SAIE 2000*, under the auspices of the IGS.

EuroGeo 2 was scheduled in conjunction with SAIE, the *International Fair for Building Technologies and Construction* (Bologna, Italy, 18 to 22 October 2000). The concurrence of the two events (*EuroGeo 2* and *SAIE 2000*) offered a unique opportunity for leading professionals to gather together, exchange information and ideas, and learn about new products, innovative technologies, construction methods, and design procedures.

There were 408 full conference registrants and 44 one-day conference registrants, for a total of 452 individuals (representing 42 countries) participating in the Conference.

The companion program was also successful and was attended by 48 individuals.

There were 64 stands at the Exhibition, with a total of 304 registered exhibitors. Moreover, 290 individuals registered as visitors only to the exhibition, for a total of 1,046 Exhibition participants.

Overall, *EuroGeo 2* and *SAIE 2000 Conference and Exhibition* were both a

tremendous success!

Introductory Short-Course and Technical Visits

The Conference was opened on Sunday, 15 October with the Introductory Short Course “Geosynthetics: types, functions, and applications” and with three technical visits.

The introductory short course was offered for those participants less familiar with the design and application of geosynthetics and was attended by 98 individuals. The short-course convenor was Prof. J.-P. Gourc (France).

The instructors and the subjects of the short courses were:

- Prof. J. Müller-Rochholz, Germany (“Different types of geosynthetics, tests to characterise the materials and their functions in interaction with soil”).
- Prof. C.J.F.P Jones, United Kingdom (“Geosynthetics in reinforced structures: main applications, interaction with soil, design methods, related tests”).
- Dr. J.P. Giroud, USA (“Geosynthetics in hydraulic engineering: main applications, interaction with soil, design methods, related tests”).
- Prof. J.-P. Gourc, France (“Geosynthetics in environmental engineering: main applications, interaction with soil, design methods, related tests”).

Technical Visit 1 included inspections of bank revetments on the inland waterway from Ferrara to the Adriatic Sea and was attended by 52 individuals.

Technical Visit 2 involved visits to the underground works of the tunnels of the new railway fast connection between Firenze and Bologna and was attended by 58 individuals.

Technical Visit 3 was dedicated to the Baricella Sanitary Landfill just outside of Bologna and was attended by 56 individuals.

Opening Ceremony and Mercer Lecture

The opening ceremony took place in “Palazzo dei Congressi” (Europauditorium) on Sunday, 15 October, at 17:30, and included speeches by Prof. G. Barla

(President of AGI, the Italian Geotechnical Society), Prof. R.J. Bathurst (President of the IGS), Prof. H. Brandl (Vice-President of the International Society for Soil Mechanics and Geotechnical Engineering), Prof. A. Cancelli (Chair of the *EuroGeo 2* Scientific Committee), and Ing. D. Cazzuffi



Opening Ceremony: Prof. A. Cancelli, Chair of the *EuroGeo 2* Scientific Committee.

(Vice-President of the IGS and Chair of the *EuroGeo 2* Organising Committee).



Opening Ceremony: Ing. D. Cazzuffi, Vice-President of the IGS and Chair of the *EuroGeo 2* Organising Committee.

After the opening ceremony, Prof. A. McGown (United Kingdom) presented the 1999-2000 Mercer Lecture: “The Behaviour of Geosynthetic Reinforced Soil Systems in Various Geotechnical Applications”. The Mercer Lecture was well attended and attracted a significant amount of audience interest and participation.



1999-2000 Mercer Lecture: Prof. A. McGown (United Kingdom).

Technical Sessions, Workshops, Keynote Lectures, and Poster Presentations

Technical Sessions and Workshops took place on 16 to 18 October in the Europauditorium. Two Technical Sessions and one Workshop were organised in parallel.

Technical Sessions A were mainly devoted to geotechnical applications of geosynthetics (i.e., slopes and walls; embankments and foundations; creep behaviour; roads, railways, and airports; pavement systems; and durability properties). Technical Sessions B principally focused on environmental and hydraulic applications of geosynthetics (i.e., landfills; coastal works; dams, reservoirs, and tunnels; canals, rivers, and inland waterways; erosion control; and hydraulic properties). The Workshops focused on specific geosynthetic-related subjects, such as education and teaching, innovative products, seismic applications, certification, installation damage, interface and pull-out behaviour, and leak detection).

Each day’s program included one Keynote Lecture in plenary session in the Europauditorium.

On Monday, 16 October, the first Keynote Lecture was presented by Prof. H. Brandl (Austria) on “Special Applications of Geosynthetics in Geotechnical Engineering”.

On Tuesday, 17 October, the second Keynote Lecture was presented by Dr.



Keynote Lecturer, Prof. H. Brandl of Austria: "Special Applications of Geosynthetics in Geotechnical Engineering".

K. Pilarczyk (the Netherlands) on "Critical Review of Geosystems in Hydraulic and Coastal Engineering Applications".



Keynote Lecturer, Dr. K. Pilarczyk of the Netherlands: "Critical Review of Geosystems in Hydraulic and Coastal Engineering Applications".

On Wednesday, 18 October, the third Keynote Lecture was presented by Dr. J.P. Giroud (USA) on: "Lessons Learned from Successes and Failures of Geosynthetics".

The Keynote Lectures were outstanding and covered various interesting and challenging geosynthetics-related subjects.

Posters were on display from Monday, 16 October until Wednesday, 18 October. Authors presented and dis-



Keynote Lecturer, Dr. J.P. Giroud of the USA: "Lessons Learned from Successes and Failures of Geosynthetics".

cussed their posters with Conference participants during the two daily coffee breaks in which the poster presentation was assigned. The papers selected for poster presentation were judged by the International Scientific Committee to be those best suited to this style of presentation.

Conference Proceedings

EuroGeo 2 Conference Proceedings (two volumes of approximately 1,000 pages and 1 CD ROM) were edited by A. Cancelli, D. Cazzuffi, and C. Soccodato and were published by Patron Editore of Bologna, Italy.

A total of 214 abstracts were submitted. After reviewing all the abstracts and the final manuscripts, the International Scientific Committee, formed by international geosynthetics experts, accepted 152 papers for publication in the Proceedings.

The first volume contains the Mercer Lecture, the three Keynote Lectures, and the papers related to the Tech-

nical Sessions A (Geotechnical Applications). The second volume contains papers related to Technical Sessions B (Environmental and Hydraulic Applications) and the Workshops.

For those interested in ordering a copy of the Conference Proceedings, you can contact the publishers directly:

Patron Editore
Fax: 39 051 768252
E-mail: patroned@tin.it

The cost of the two volumes plus CD ROM is 150,000 ITL (plus mailing costs).

IGS Awards

During *EuroGeo 2*, the IGS Awards were presented to individuals or groups of individuals who have made an outstanding contribution to the development and use of geotextiles, geomembranes, related products or associated technologies through their scientific and technological achievements. The IGS Awards presented at *EuroGeo 2* recognised individual achievements demonstrated during the period 1996 to 1999.

IGS Awards were given to:

- Ing. D. Cazzuffi, Ing. P. Rimoldi, Ing. A. Sciuero, and Ing. P. Sembenelli, Italy, on the subject: "Geosynthetic System for Rehabilitation of Concrete and Embankment Dams", and



The first group of IGS Award recipients for 1996 to 1999 were (from left to right) Ing. A. Sciuero, Ing. P. Rimoldi, Ing. P. Sembenelli, and Ing. D. Cazzuffi from Italy. The Award was presented by Prof. J. Müller-Rochholz (Germany).



The second group of IGS Award recipients for 1996 to 1999 were Prof. J.-P. Gourc (left) and Dr. K. Warloulzel (absent) from France. The Award was presented by Prof. A. Cancelli (Italy).

- Prof. J.-P. Gourc and Dr. K. Warloulzel, France, for an educational CD-ROM on the subject: “Retaining Structures with Geosynthetics”.

The Young IGS Member Award, for an IGS Member who is less than 36 years of age on 31 December 1999, was given to Mr. T. Uchimura, Japan, on the subject: “Preloaded-Prestressed Geogrid-Reinforced Soil Bridge Pier”.

For the first time in Europe, IGS Student Awards were presented. The



The Young IGS Member Award recipient was Mr. T. Uchimura (left) from Japan: “Preloaded-Prestressed Geogrid-Reinforced Soil Bridge Pier”. The Award was presented by Prof. R.J. Bathurst (right, IGS President, Canada).



IGS Student Awards recipients from European, African, and South American IGS Chapters (left to right): Mr. E. Asanza (Spain), Mr. C. Pugh (United Kingdom), Mr. P.E. Stevenson (IGS Secretary), Ms. L. Du Preez (South Africa), Ing. D. Cazzuffi (IGS Vice-President), Ms. S. Braumandl (Germany), Mr. M. Barretto (Brazil), Mr. A. Agosti (Italy), and Mr. F. Iosif (Romania).

Award consists of a cheque of US\$1,000 for each winner and was used to cover Conference participation costs.

The winning students from European, African, and South American IGS Chapters (i.e., Germany, Italy, Romania, Spain, UK, South Africa, and Brazil) attended *EuroGeo 2*.

Parallel Events

Before the Conference, the IGS Officers and IGS Council meetings took place in Bologna, Italy.

The IGS also organised a wonderful reception for Corporate Members on the evening of Saturday, 14 October in the prestigious Club “Bononia” in the downtown area, in close proximity to the two famous leaning towers of Asinelli and Garisenda.

Two other important meetings took place, during *EuroGeo 2*:

- *Sunday, 15 October*: WG 9 (Geosynthetics and Earth Reinforcement) of ISSMGE, and
- *Monday, 16 October*: AGI (the Italian Geotechnical Society) Board meeting.

At the end of the Conference (19 October), the joint meetings of ISO/TC 221 (the new ISO Technical Committee on Geosynthetics replacing the previous ISO/TC 38/SC 21 subcommittee)

and of CEN/TC 189 on Geosynthetics took place in Milano, Italy. A plenary session on 20 October concluded these important meetings concerning international standardisation of geosynthetics.

Social and Companion Program

Each of the three Conference evenings featured social events intended to provide registered participants and accompanying persons an opportunity to meet one another.

On Sunday, 15 October, the Welcome Reception took place in Palazzo dei Congressi at the end of the Opening Session, in conjunction with the official opening of the Technical Exhibition.

On Monday, 16 October, the traditional football (soccer) match between the Latin and Anglo-Saxon teams took place: the final result was 4-2 in favour of the Latin team!

On Tuesday, 17 October, the official banquet (Gala Dinner) took place at the Villa Cicogna near Bologna and was attended by 258 individuals. The Villa was built between 1570 and 1573 and is still in its original form. Villa Cicogna is the last project of the renowned 16th Century architect Jacopo Barozzi, known as Vignola, who built the Villa as a summer residence, or “Boncompagni”, for the Italian princes.

Excursions to Ferrara (capital city of the Estensi dynasty), Ravenna (byz-



The winning Latin football (soccer) team at the traditional International Geosynthetics Conference match.



The Anglo-Saxon football (soccer) team at the traditional International Geosynthetics Conference match.



The official banquet (Gala Dinner) of EuroGeo 2 that took place in Villa Cicogna near Bologna, Italy.



The individuals who made EuroGeo 2 an international success. *Top row left to right:* C. Soccodato (Board Member), D. Cazzuffi (Chair, Organising Committee), A. Cancelli (Chair, Scientific Committee), and P. Fantini (Board Member). *Middle row left to right:* F. Soccodato, A. Pasquini, M. Cappellini, M. Torresendi, and A. Carraro. *Bottom row left to right:* O. Ierna, S. Luthi, A. Lamberti, and P. De Filippis (Technical Secretaries); and S. Antonielli (Committee Secretary). Those missing from the photo are: S. Martinetti and E. Pasoli (Board Members); and A. Agosti and D. Manfredini (Technical Secretaries).

antine monuments), and Faenza (ancient and artistic ceramics) and a guided tour of Bologna were organised and well attended.

Acknowledgements

All of the Organising Committee Members and, particularly, the Board Members, P. Fantini, S. Martinetti, E. Pasoli, C. Soccodato, and S. Antonielli, contributed substantially to the success EuroGeo 2 through their relentless efforts and commitment.

A very congenial and effective team of Technical Secretaries (A. Agosti, M. Cappellini, A. Carraro, P. De Filippis, O. Ierna, A. Lamberti, S. Luthi, D. Manfredini, A. Pasquini, F. Soccodato,

and M. Torresendi) was also a key factor in the success of EuroGeo 2.

Finally, all of the Conference exhibitors and sponsors are gratefully acknowledged.

See you at EuroGeo 3 in Munich, Germany, in Spring 2004:

Arrivederci!

Seventh International Conference on Geosynthetics

Bulletin 1 - Call for Papers

Nice, French Riviera, France, 22 to 27 September 2002



The first international geosynthetics-related conference was held 25 years ago in Paris, France.

Now, after 25

years, the *Seventh International Conference on Geosynthetics*, 7th ICG, is again being held in France on the French Riviera in Nice, from 22 to 27 September 2002. The Conference is being organised by the Comité Français des Géosynthétiques (CFG), under the auspices of the IGS.

The Conference mandate is to offer:

- an exceptional opportunity for information exchange between specialists and the uninitiated, as well as those individuals who are experts in the various disciplines related to geosynthetics (geotechnics, environment, hydraulics, geology, etc.);
- an outlook to the future and to innovation, by providing the widest possible forum to young or new authors and by welcoming papers devoted to new techniques and applications;
- a high scientific and technical level to match the expectations of all participants.

The *7th International Conference on Geosynthetics* will appeal to all individuals who work in any geosynthetics field, such as project managers, designers, contractors, manufacturers, inspectors, researchers, and teachers.

7th ICG

Important Dates to Remember

- Deadline for receiving abstracts: 30 April 2001
- Decision of Organising Committee sent to authors: August 2001
- Deadline for receiving accepted papers: 31 October 2001

Conference Theme and Topics

The Conference will be an ideal occasion to obtain an overall view of the multiple applications of geosynthetics in all fields of use. The subjects discussed will be as follows:

- civil engineering,
 - transport (roads, railways, tunnels, airports, etc.),
 - hydraulic structures (dams, canals, reservoirs, etc.),
 - erosion control,
 - mining,
- environmental protection,
 - solid waste landfills,
 - effluent and retention basins,
 - protection of water resources,
 - landscaping,
- prevention of natural and technological risks,
- agriculture,
- teaching,
- other.

All aspects concerning the use of geosynthetics will be addressed, drawing on experience gained from case histories, as well as research and development into new products and uses, i.e., conceptual design, dimensional design, specifications, construction provisions, building of structures, inspection, long-term behaviour, assessment of product impact(s) on the environment, standardisation, certification, etc.

Scientific and Technical Program

Five special lectures and more than 200 papers will be presented either orally, during parallel sessions and numerous workshops, or in the form of posters.

Technical Exhibition

More than one hundred exhibitors (industry, design offices, laboratories, testing houses, and

installers) will present the latest technological innovations and associated geosynthetic services to the Conference delegates and visitors. The technical exhibition is open to all interested companies and organisations; an information and registration file is available upon request from the General Secretariat.

Social Program

Nice, France has all the resources required to ensure the success of this event: an international airport with direct flights to more than 100 cities on five continents; a modern Conference Centre; the Nice Acropolis, located in the heart of the old town; as well as numerous hotels of all categories in the immediate vicinity of the Conference Centre.

The inaugural reception and the gala dinner will provide Conference delegates and accompanying persons the opportunity to meet others in a warm and friendly atmosphere. Other events will include, the traditional football (soccer) match and excursions to the city of Nice and the surrounding area.

Official Language

The official languages of the Conference will be English and French. Simultaneous translation services will be available during the sessions.

Call for Papers

Papers may cover any of the subjects described above; authors are required to submit a detailed two-page abstract of their paper in English:

- one page of text (400 to 500 words), with five key words, and
- one page of illustrations (e.g., photos, diagrams).

The abstracts must include the name, title, address, phone and fax numbers, as well as the e-mail address of all the authors. Abstracts should be sent to the General Secretariat by post and by e-mail. The abstract form can be

downloaded from the 7th ICG WWW site (<http://www.7icg-nice2002.com>).

All abstracts will be reviewed by the Scientific Committee, which will comprise international experts representative of all the subjects covered by the Conference.

The abstracts must be sufficiently detailed to allow the experts to assess the scientific and technical interest of the proposed paper, especially the relevance of the results obtained and the contribu-

tion they make toward advances in the application of geosynthetics.

The papers must be related to original, previously unpublished work and must not contain any information of a commercial nature.

After selection by the Scientific Committee, the paper must be written in English. Detailed instructions will be sent to the authors of the selected abstracts.

The final manuscript will be reviewed by the Scientific Committee.

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Preloaded-Prestressed Geogrid-Reinforced Soil Bridge Pier

Taro Uchimura, Fumio Tatsuoka, and Masahiro Shinoda, University of Tokyo

Masaru Tateyama, Railway Technical Research Institute

Construction

The first prototype preloaded and prestressed (PL-PS) geogrid-reinforced soil (GRS) bridge pier was constructed to support a pair of temporary railway girders, 16.5 m in length, in the summer of 1996 in Fukuoka, Japan (P1 in Figure 1). The authors have developed this new PL-PS construction method to strengthen reinforced soil masses, i.e., increase their stiffness, against vertical compressive loads such that the soil mass can support heavy structures, such as bridge girders.

Figure 2 is a detailed schematic of the PL-PS pier. The subsoil of the pier, which is a thick soft clay deposit, was improved using a cement treatment. Four steel tie rods were then vertically installed and anchored into the cement-mixed columns. Subsequently, the backfill of the pier was constructed, which was reinforced with geogrid layers placed at an average vertical spacing of 150 mm. Gravel-filled bags were placed at the edge of each geogrid layer, which eased installation of the geogrid layers.

After construction, a vertical pre-load of 2,400 kN (an average vertical pressure of 200 kPa) was applied to the backfill through the top reinforced concrete (RC) block using four hydraulic jacks installed at the top of the tie rods. The backfill was compressed by 8 mm during preloading. Then, the load was reduced to 970 kN, and the top ends of the tie rods

were fixed to the top RC block to maintain the compressive stress (i.e., pre-stress) in the backfill. Lastly, thin RC facings were constructed around the backfill.

Observed Behaviour of the Soil Pier

The vertical compression and the tension in the pier tie rods have been mea-

sured for approximately four years after construction (Figure 3). In addition, the compression of the reinforced soil abutment with full height rigid concrete facing (A2 in Figure 1), which was not preloaded or prestressed, has also been observed. The PL-PS pier was compressed by approximately 8 mm for the first 10 days of the preloading period and, subsequently, it was compressed

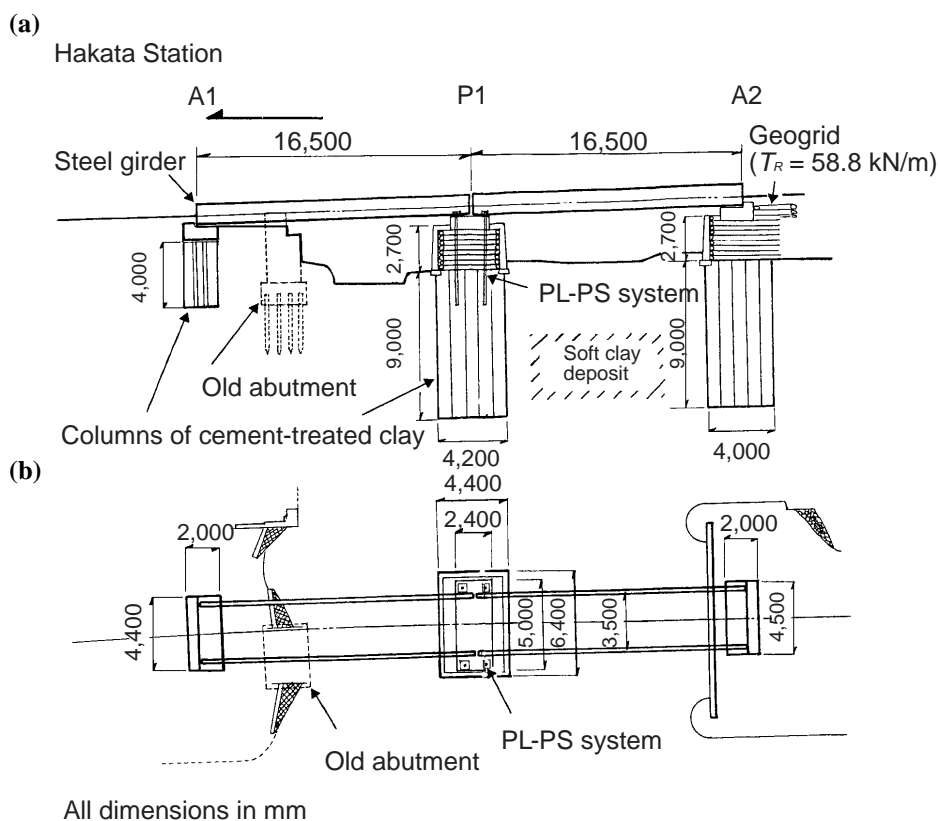


Figure 1. Maidashi bridge with a preloaded-prestressed geogrid-reinforced soil pier: (a) cross section; (b) plan view.

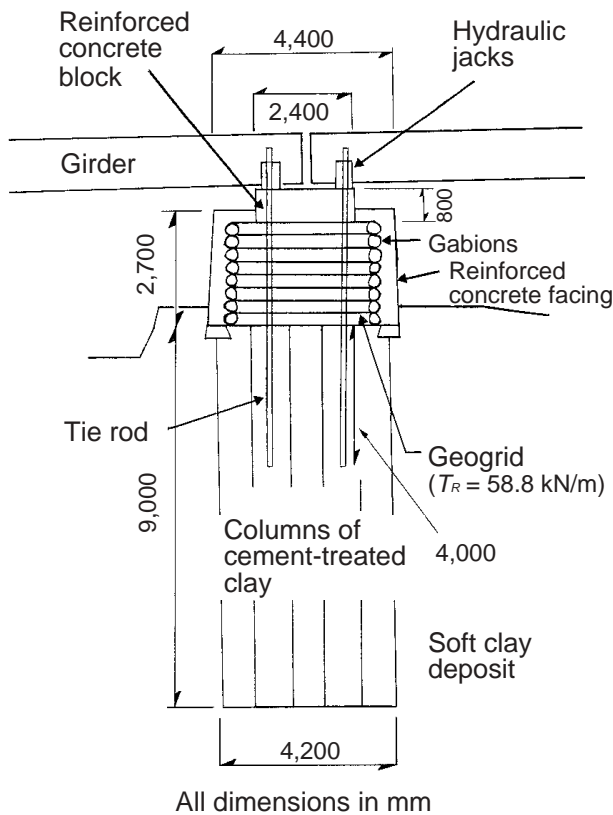


Figure 2. A detailed schematic of the soil pier.

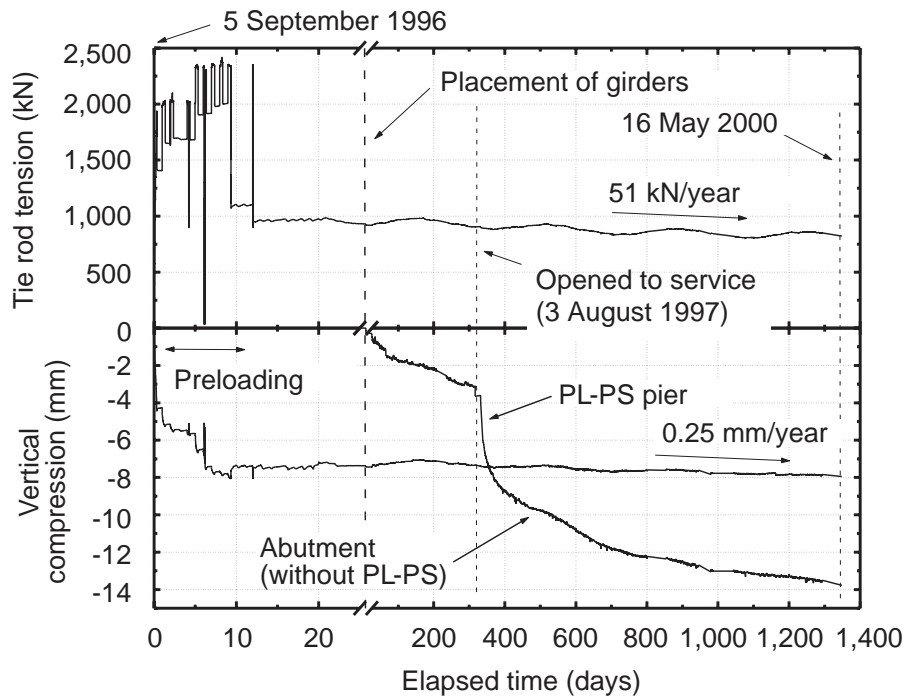


Figure 3. Long-term behavior of the soil pier and abutment.

very slowly under the prestressed condition. Even after being opened for service, the compression rate of the pier did not change, i.e., its value remained minimal. Corresponding to the com-

pression, the tie rod tension decreased very gradually. These rates of change are small enough for approximately five years of use. On the other hand, the abutment without preloading and pre-

stressing compressed by approximately 3 mm shortly after it was opened for service, due to self-weight and the girder and continued to compress for more than three years. These comparisons show that preloading and prestressing are very effective for reducing vertical compression of the reinforced backfill even over a long time period with more than 10^5 cycles of traffic loading.

Figure 4 shows the tie rod tension and vertical compression of the PL-PS pier when the first train passed over the bridge. The train had two carriages, each weighing approximately 500 kN. The pier backfill experienced essentially elastic compression of 0.02 mm, which corresponded to a soil strain of 0.001%, while the tie rod tension temporarily decreased by 7 kN. At the same time, the abutment without PL-PS was compressed by 0.2 mm, which is ten times the compression of the PL-PS piers, with some residual compression remaining after the train passed.

It is the understanding of the authors that the strain amplitude of the stiffened PL-PS pier was so small that the backfill deformed nearly elastically, while that of the abutment without PL-PS was relatively larger and caused plastic compression. This may explain the measured difference between the long-term compression of the pier and the abutment mentioned above.

Discussion and Summary

The preloading and prestressing procedures resulted in a significant reduction of vertical compression of the pier backfill under both a long-term dead load and a significantly large number of cyclic traffic loads. The authors' understanding of these reduction mechanisms is as follows:

- The backfill can be effectively compacted and a significantly large pre-load can be applied without damaging the backfill because it is reinforced with geogrid.
- The backfill is very stiff, exhibiting nearly elastic behavior, because a large pre-load was applied and subsequently released. In addition, the potential creep deformation and relaxation of the backfill soil was

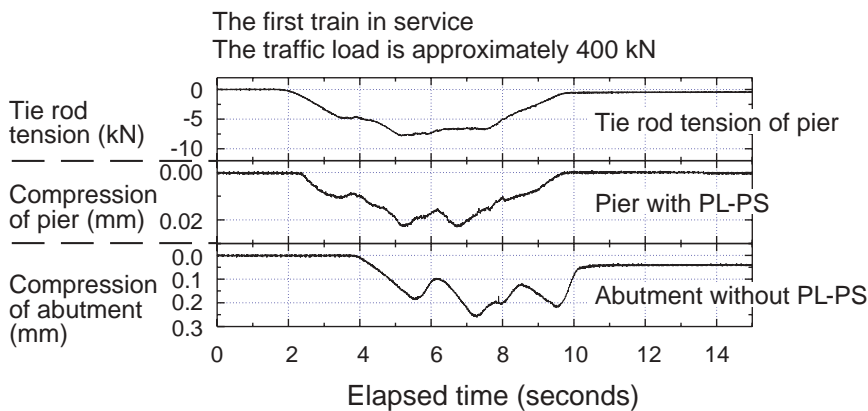


Figure 4. Behavior of the soil pier and abutment during train operation.

- decreased as a result of the preloading procedure.
- The backfill is always vertically compressed by the remaining prestress resulting in a higher elastic stiffness.
- A large part of the tensile strains in the reinforcement, induced by preloading, remains after the load is decreased to the prestress level. Therefore, the reinforcement confines the backfill more efficiently.

- The load applied to the top of the backfill is always in equilibrium with the sum of the external load applied on the top reaction block and the tie rod tension. Therefore, when an external compressive load is applied, the reduction in the tie rod tension associated with vertical compression of the backfill results in a reduction of the load increment on the backfill. This mechanism decreases the backfill settlement.

Geosynthetics International

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Geosynthetics International has established itself as a premier peer-reviewed journal on geosynthetics. The Journal publishes technical papers, technical notes, discussions, and book reviews on all topics relating to geosynthetic materials (including natural fiber products), research, behaviour, performance analysis, testing, design, construction methods, case histories, and field experience.

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References

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Granular Liquid Collection Layers”,
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and Granular Liquid Collection Sys-
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“The Influence of Partial Clogging and
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An Official Journal of the IGS

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Dr. Jean-Pierre Gourc is planning to prepare a Special Issue on “Erosion”. If you are interested in contributing to this special issue, please contact Dr. Gourc at the address on p. 19, or by e-mail: gourc@ujf-grenoble.fr.

Dr. Michael Heibaum is planning to prepare a Special Issue on “Geosynthetic Containers” (also called “geosystems”). Submissions are due by 30 September 2001. If you are interested in contributing to this special issue, please contact:

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BAW - Bundesanstalt f. Wasserbau
Kussmaulst. 17, 76187 Karlsruhe
Germany
E-mail: mhb@baw.de

The Editorial Board Members and reviewers have worked very hard over the past year to provide detailed, constructive reviews in a very timely manner. The average review period is less than three months. Papers come from a wide range of countries with approximately one third of the papers coming from the Americas, Europe, and the rest of the world. The rejection rate is 59%. The Journal’s Editor and Board Members are extremely appreciative of the authors’ hard work in addressing the reviewers’ comments and the quick return of revised papers.

All technical contributions and inquiries should be directed to:

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Authors should submit four copies of their paper, which will subsequently be reviewed by at least two individuals. No original figures should initially be included.

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“Testing the resistance to oxidation of polypropylene geotextiles at enhanced oxygen pressures”, P. Vink and H.F.N. Fontijn

Book Review of “Rheology of reinforced soil” (Andrzej Sawicki, Ed.), E. Dembicki

Volume 18, No. 6 (2000)

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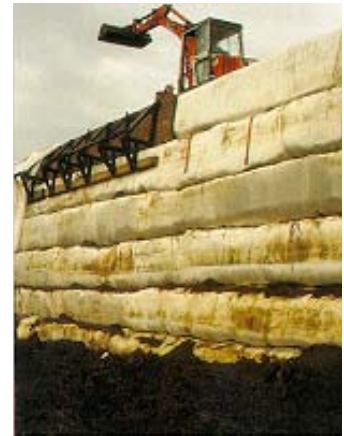
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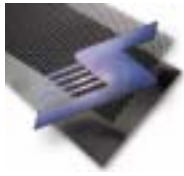
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The International Geosynthetics Society was formed with the following objectives:

- to collect, evaluate, and disseminate knowledge on all matters relevant to geotextiles, geomembranes, related products, and associated technologies;
- to improve communication and understanding regarding geotextiles, geomembranes, related products, and associated technologies, as well as their applications;
- to promote advancement of the state of the art of geotextiles, geomembranes, related products, and associated technologies; and
- to encourage, through its Members, the harmonization of test methods, and equipment and criteria for geotextiles, geomembranes, related products, and associated technologies.

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- participate in a forum for designers, manufacturers, and users, where new ideas can be exchanged and contacts improved.

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