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# Society for Underwater Technology

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## **President's Foreword**



*President  
Dr David Kirkley*

**M**ay 23rd was an important day in the Society's history as it marked the fiftieth anniversary of the date of its foundation in 1966. Much has changed since then, in the world, in technology, and within the Society itself. Those of us that can remember how things were in 1966 can only marvel at the changes that have taken place. Then, the cold war was at its height, the Common Market only had six members, and the offshore industry with its need for subsea technology was still new. Who would have thought then that in 20 years Soviet communism would collapse and that the Common Market would evolve into the giant institution that it is today with 28 member countries spanning the whole continent.

Subsea technology has progressed, too, in many ways. Fifty years ago, the offshore industry was in its infancy. Shallow water production of oil and gas had just commenced. There were no dynamically-positioned vessels, ROV's and AUV's, or commercial saturation diving with divers living for weeks at a time under pressure. These are things we take for granted now but they have been developed since the Society was founded and many of its members have been at the forefront of those developments and their application. It is something of which the Society can be proud. The Society can take satisfaction, too, in knowing it has played a leading role by encouraging discussion and helping to spread subsea technology knowledge worldwide and educate new generations of subsea technologists. The pace of technical development shows no sign of easing. For the last fifty years the offshore oil and gas industry has been the principal driver of technical change but that is beginning to change. The offshore renewables industry is growing fast and has its own needs and approach. Aquaculture and offshore mining have long been discussed but are now operating on an industrial scale. Marine science is achieving a higher profile as the need for a sustainable global environment becomes more widely accepted. Visions of the future are fascinating. Forecasts, however, are likely to be inaccurate. No doubt we shall be surprised at what is achieved, even in the next decade.

The Society has prospered since 1966. It has changed as the world and its industries have changed. Globalisation has become a major force and the Society has adapted to it by evolving from a UK-centric institution to one that is now truly international with branches worldwide and an worldwide membership. How the Society will function in this new form and how it will continue to make a vital contribution to the discipline of subsea technology is an immediate challenge. I will not hazard a guess concerning the shape and appearance it will have in a few years. I am confident, though, that as it enters into its next half-century, the Society will continue to be a vital, respected, and leading part of the subsea technology community.



Awards at the AGM 2015: Back row (L–R): Vidar Fondevik, Neil Stagg, Richard Salisbury, Ian Gallett, Front row (L–R): Kjell Olav Stinessen, Jane Bugler, Prof Robert Sutton

## Awards 2015-2016

### Hon Fellows

Ian Gallett  
Prof Robert Sutton

### New Fellows

Vidar Fondevik  
Richard Salisbury  
Neil Stagg

### President's Award

Awarded to Kjell Olav Stinessen in recognition of his outstanding career over many years in the subsea oil and gas sector, and to the development of the SUT.

### David Partridge Memorial Award for Underwater Technology, jointly sponsored by SUT and the Offshore Energy Technical Panel

The David Partridge Memorial award was not given this year.

### Houlder Cup for the Best Contribution to Underwater Operations

Awarded to Jane Bugler, for her outstanding contribution in the field of health & safety in diving operations for many years.

### ESF Awards

The Tom Patten Memorial Award for outstanding final-year undergraduate student and the Platinum Award were not awarded this year.

### BP/SUT Under and Postgraduate Award for Best Offshore and Subsea Engineering and Technology Thesis

The BP/SUT Award was not given this year.

### SUT Oceanography Award

Awarded to Prof Karen Heywood for her outstanding contribution to the field of oceanography.

### Lennard-Senior Memorial Prize

This award is conferred upon Andrew Hunt in recognition of outstanding individual achievement in the field of Marine Renewable Energy.

## Council's Summary of Activity 2015-2016

<b>Membership Summary</b>		
<b>Corporate Members</b> 171		
<b>Individual Membership</b>		
<b>Category</b>	<b>2016</b>	<b>2015</b>
Hon. Fellows	21	19
Fellows	101	97
Full members	908	1,077
Associates	36	35
Students	66	122
Corporate individuals	980	1,073
<b>Total</b>	<b>2112</b>	<b>2423</b>

Table 1

<b>Financial Summary</b>		
<b>Unrestricted Fund (£)</b>		
<b>Category</b>	<b>2016</b>	<b>2015</b>
Income	406,440	743,883
Expenditure	722,747	789,907
Surplus/ (deficit)	(316,307)	(46,024)
Transfers to restricted fund	-	(24,336)
Gain/(loss) on investments	2,027	9,280
<b>Retained surplus/ (deficit)</b>	<b>(314,280)</b>	<b>(61,080)</b>

Table 2

### Membership

The membership of the Society at 30 June 2016 compared with the previous year is summarised in Table 1. With the downturn in the offshore oil and gas industry continuing throughout this year, it is to be expected that there has been a noticeable decrease in membership numbers in both the individual and corporate categories.

### Finance

A summary of the financial result for the Unrestricted Fund for this year is compared with that for the previous year in Table 2.

The Unrestricted Fund at 30 June 2016 amounted to £312,983 compared with an amount of £624,640 at the end of the previous year, allowing for gains on investments.

### Educational Support Fund

A report for the year ending 30 June 2016 from the Educational Support Fund Management, together with a copy of the audited accounts of the Fund, amalgamated as 'restricted funds' within the main account, is included in this Annual Report. This year the expenditure exceeded income to the Fund by £37,494, compared with expenditure exceeding income by £13,726 in 2014–2015. This led to a net change in the capital funds for the Educational Support Fund from £240,922 in 2015 to £203,428 in 2016, when gains on investments are taken into account.

### Auditors

A resolution for the re-appointment of auditors will be proposed at the forthcoming Annual General Meeting.

By order of Council

D. Jordan

Honorary Secretary

13 October 2016

Registered Office: 1 Fetter Lane, London, EC4A 1BR, UK.

## Chairman's Report

Over recent years the Society has flourished thanks mainly to the emergence of underwater technology as a core discipline within the oil and gas industry. This has allowed the Society to grow dramatically to the global organisation it is today. As the oil and gas industry ebbs and flows so do the fortunes of SUT. Two years ago SUT saw the first signs of impact from the downturn in the offshore industry and in line with most analysts at the time the Society expected the downturn to be short lived. Regrettably this has not been the case and during the year 2015/16 SUT has suffered from a significant downturn in its conference and course programme, the majority of which is aimed at the oil and gas industry. Given that these activities generated some 70% of revenue during 2013/14 and 64% of 2014/15 revenue any significant downturn would have a serious impact on SUT's finances. During 2015/16 the percentage of revenue from conferences and courses has dropped to circa 25%. Whilst revenues have been curtailed, the outgoing costs have not reduced at the same pace principally due to the fact that venues and set up costs have to be committed well before the event. Despite this with one notable exception courses and conferences have continued to be a net contributor to the Society's funds. The notable exception has been the planned 50th Anniversary event in London. As planning for the event progressed it was increasingly apparent that the anticipated number of papers, exhibitors and attendees was unlikely to be achieved in the current climate and in the end Council took the reluctant decision to cancel the event, writing off costs accrued to date for the Excel Centre and minimising the Society's exposure to further costs.

### Finance

The 2015/16 financial outcome is an operating loss of £207k before exceptional items and ESF grants. In the accounts a figure of £345k will be seen, this includes c.£100k associated with the aborted 50th Anniversary event at the Excel Centre and £38k for the support of the ESF students which comes from the ESF restricted fund. It should be noted that previously, in 2014, Council had agreed to underwrite the Anniversary event out of reserves.

The Society has, over the profitable years, accrued sizeable reserves to cover such eventualities as this. Whilst the Society remains in a strong position with comfortable reserves, the accounts highlight the need for a major review of strategy going forward. In particular, the funding and scale of future conferences and courses needs to be seriously scrutinised by Council and the Branch Committees during the coming year. The strategy needs to address the finances, organisation and the role of headquarters in supporting a global organisation. Consideration needs to be given to strategic alliances with like-minded organisations with a view to cutting overheads and sharing resources.

Revenue from membership fees has remained sensibly constant as has the income from the *Journal* and other publications. Membership has been fairly static over the last year with a small drop in both individual and Corporate members. Inevitably there has been a turnover of both individual and Corporate members with most of the new members coming through the Branches. Of particular note has been the upsurge of interest from student and young engineers following initiatives in Aberdeen, London, Houston and Perth. Council would encourage all the branches to look at opportunities to provide local initiatives to further the interests of the Society among students and young engineers. They are our next generation of members and will guarantee a long future for the Society.

Whilst the accounts presented relate to UK and Norway, the situation in Perth and Houston shows a similar trend of increasing difficulty in supporting solely oil and gas related activities and Council would encourage them to continue in their quest to diversify their underwater technology activities.



*Chairman of Council  
Peter Metcalf*

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## **Chairman's Report**

*continued...*

On the expenditure front considerable effort has gone into controlling costs given the difficult circumstances. Savings need to be achieved whilst maintaining the services to the membership as a learned society. The Finance Sub-Committee has spent a lot of time with the CEO scrutinising the Society's cost base during the development of 2016/17 budget. A number of major savings have already been implemented such as the virtual elimination of the marketing/business development budget. Office costs are also under review although it needs to be remembered that a move to smaller/cheaper accommodation has a cost associated with it. Council decided to maintain the same membership subscriptions for 2016/17 albeit with a rationalisation of some of the grades of membership and small changes to member benefits such as the elimination of the members' diary.

### **Council**

During the past year Council has successfully used teleconferencing to allow elected overseas members and selected overseas Chairmen to participate in Council meetings. This has been a challenge not least because of the diverse time zones between Houston and Perth and I would like to thank those members of Council for the giving of their time beyond the normal call of duty. A new five-year strategic plan for 2016-2021 is required to take the Society forward in the current constrained climate. In the new age of globalisation this plan needs to reflect the wishes and needs of the branches.

### **Committees of Council**

The Committees of Council are expanding to include appropriate representation from the overseas branches and the Chairmen of the International, the Education and Training and the Publications Committees have all been tasked to seek nominations for Committee membership and make this happen. These Committees will need to broaden their activities to meet today's challenges.

### **Technical Committees**

The Technical Committees have been the lifeblood of the Society with each Committee growing organically over the life of SUT. Some Committees are very focused in their activities whilst others cover a very wide range of interests. In some areas there is a degree of overlap between Committees and there are some areas of underwater technology which are not covered at all. The time has come to review the remits and scopes of each Committee to reflect more closely the needs of the members in today's challenging environment. Where appropriate some committees may elect to set up regional sub committees in association with a local branch and Council would encourage more dialogue between Technical Committees and the Branches.

On the Education and Training front the Society offers a number of student bursary schemes around the world and it is timely to review the scope of these schemes to develop best practice going forward. In particular the future scope of the ESF needs to be reviewed in view of the increasing difficulty in attracting external funding. There are also many examples of good practice of what the SUT should be doing to support schools and career development at a local level and this should be shared for the benefit of all. Reluctantly the Executive Committee has recommended that no new awards be made from the ESF fund for this financial year but that all existing awards will be honoured.

### **Branches**

The worldwide spread of the Society remains unchanged with established overseas branches in Houston, Rio de Janeiro, Perth, Melbourne, Kuala Lumpur, Beijing, Bergen and most recently Singapore. Future geographical expansion opportunities will continue to be explored as and when opportunities present themselves and funding becomes available. In the UK, Aberdeen continues to go from strength to strength with the North of England Branch based in Newcastle and the London and South of England Branch now firmly established.

All the Branches have been very active with local events, details of which follow in



## Chairman's Report

*continued...*

the Branch reports. The mainstay of Branch activities remains the technical presentations and courses, many of the awareness courses now being tuned to meet local requirements.

### **Ian Gallett**

This year has seen the end of an era with retirement of Ian Gallett. Ian first joined SUT as CEO in 1996 until he took partial retirement in 2009, a period which saw the transformation of the Society into what it is today. Since 2009 Ian continued to develop the overseas interests of SUT and provided ongoing support in many areas to ensure the effective running of SUT. He was also instrumental in the successful establishment of the London and South of England Branch as a standalone branch. Ian will be sorely missed by the membership and Council would like to thank him for his unstinting service to the Society.

### **SUT Staff**

Thanks must be given to the small group of hardworking headquarters staff in London and Aberdeen. In addition we need to thank the permanent staff in our Houston and Perth Branches. Between them all, they have kept the daily activities and events of the Society on track during the year. I would also like to thank all the Committees, particularly their Chairmen, as well as those of the Branches for all their hard work and the enthusiasm that they bring to the SUT. They are, after all, the life blood of the SUT.

In conclusion despite the current financial situation, Council believes the Society remains in a strong place to meet the challenges which lie ahead. SUT has been through difficult times in the past and each time has grown stronger through the resolve of its members and Council looks forward to 2016/17 as the next step to success over the next 50 years.

## Officers and Council 2015-2016

### President

*Dr D Kirkley*

### Chairman

*P Metcalf*

### Immediate Past President

*Prof G Griffiths*

### Honorary Secretary

*D Jordan*

### Honorary Treasurer

*M Cook*

### Secretary to Council

*Dr RL Allwood*

### Members

*D Brookes*

*M Cook*

*M Crawford*

*C Curran*

*R Farrier*

*S Hall*

*B Loth*

*J Mann*

*R MacDonald*

*D Pliszka*

*T Powell*

*D Saul*

*Dr MDJ Sayer*

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*(as at 30 June 2016)*

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### Perth Office

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### Chief Executive

*Dr RL Allwood*

### Membership & Finance Officer

*J Hinton*

### Publications Officer

*E Boddy*

### Journal Officer

*E Azzopardi*

### Administrative Secretary

*C Ince*

### Events Manager

*N Henderson*

### Administration & Events Assistant

*E Young*

### Communications Coordinator

*Araceli Lopez*

### Events Coordinator

*Patsy Rhymes*

### Perth Branch & Events Manager

*Jennifer Maninin*

### Finance/Membership Administrator

*Fiona Allan*

### Events Assistant Perth

*Corelle Charles*



## [www.sut.org/branch/aberdeeen](http://www.sut.org/branch/aberdeeen)

## Aberdeen Branch

The Aberdeen Branch has gone through a transitional year in terms of streamlining activities and adjusting to the downturn in the oil price. We have managed keep interest and attendances at evening meetings high and a particular success has been the SUT+ activities throughout the year. On the downside, training courses have suffered particularly badly from the downturn. To conclude, the branch continues to serve an important role in the regional subsea sector and we will aim to grow in 2017 on the back of re-invigorated courses, lively evening meetings and a strong SUT+.

### Committee

Paul Williams (ADIL) and Richard Newby (WGK) have taken the reigns of the Aberdeen Branch Committee and serve as chair and vice-chair respectively. In addition to these roles, the Treasurer role was assigned to Tony Laing, himself a long serving committee member. The committee would like to extend thanks to Chris Milner and Katrina McWilliam for their efforts over the preceding three years in guiding the branch and giving freely of their time.

Over the course of the year, the following committee members have departed to take up new positions or opportunities: Neil Saunders (GE); Graeme Kinnell (Subsea 7); Donald Thomson (Nautronix); Ila Glennie (University of Aberdeen); Daniel Warrick (Maersk); Michael O'Sullivan (Ennovate) and David Liddle (SUT). The Committee would like to thank those departing for their excellent effort and commitment and wish them well in their future endeavours.

In terms of new faces we have been joined by: Ekaterina Pavlovskaja (University of Aberdeen); Graeme Dunbar (Robert Gordon University) and Daniele Petrone (One Subsea). We welcome our new joiners and thank them in advance for their participation in the important year ahead. We will be seeking one or two further members to enhance the committee through the course of the next year.

As a branch, we are fortunate in receiving an excellent level of support from across the region, covering a broad spectrum of personnel emanating from Operators and Tier One Contractors through manufacturers, consultancies to academia. The composition of the committee covers all these organisations, and it would not be possible for us to conduct the branch events and initiatives without the generous time and effort. We would like to thank their employers for allowing participation at this challenging time.

Aberdeen-based Events Manager, Nicola Henderson ably assisted by Emma Young, has done an excellent job during the course of the year, both in supporting Branch requirements and also supporting wider-ranging SUT events. In particular, the efforts of Nicola and Emma are to be commended in their drive to reduce costs and improve efficiency in branch activities.

### Events Manager Commentary

Since January 2016 the SUT UK events team have worked hard to develop relationships with venues and suppliers throughout the UK and in-return have seen the benefit through lower prices for DDR's and more flexibility in time scales of updating numbers. This has been greatly beneficial in a market where the industry is not at its strongest and delegates are leaving it to the last minute to commit to events.

As well as SUT organised events the UK events team have attended a number of other industry events in order to network and showcase the SUT brand and what it has to offer. Events include - Subsea Expo; Aberdeen, NOF Energy; Newcastle, Oceaneering; London and All Energy; Glasgow. As well as this the SUT events team is in communication with representatives from Subsea UK, Oil and Gas UK, NOF Energy, Pipeline Guild and the EIC in order to avoid event clashes, develop network relations and determine where there



*Chairman: Paul Williams*

### Committee

P Williams *Chairman*  
 R Newby *Vice Chairman*  
 N Henderson *Secretary*  
 T Laing *Treasurer*  
 P Benstead  
 P Blake  
 P Duggan  
 G Dunbar  
 R Gibson  
 M Harley  
 G Kinnell  
 J Mann  
 R Newby  
 E Pavlovskaja  
 H Petersen  
 D Petrone  
 P Roberts  
 M Smith  
 P Williams

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## Aberdeen Branch *continued...*

are potential synergies for working together.

### Evening Meetings

The series of evening meetings held throughout the year, totalling nine, have continued to enjoy regular strong attendance. The format is tried and tested with numbers approaching the 200 mark on some occasions. The Hilton Treetops continued to be the regular venue for these meetings, however the committee took a decision to trial RGU as an evening venue for the June meeting. This proved successful in terms of venue, attendance, car-parking and of course cost efficiency. The committee has therefore decided to move evening meetings to RGU.

The programme of talks was as follows:

- September: Gadgets and Widgets. An ever popular set of 10-minute presentations, this is a chance for companies to tell the audience about smart gadgets, or innovative thinking, and a chance for the audience to learn what's new in the industry.
- October: Flow assurance and Production Optimisation can be achieved by applying subsea processing technology in an integrated systems approach to maximise recovery. This was a joint event between the SUT and Aberdeen IChemE member group.
- November: Small Pools and Progressing Projects an update on progressing projects given by EnQuest and Apache and covering the Scolty Crathes and Aviat projects respectively. A presentation of the Government Small Pools programme was also given.
- January: Global Market Outlook, this successful breakfast seminar brought together technical and management personnel to receive updates on the market and predictions for the Oil & Gas sector. Presentations were given by Simmons & Co and by OGA.
- February: Subsea Wireless Communication this evening meeting brought attendees up to date on how wireless communication is being used and developed subsea, the presentation started with a technology overview. Presentations were given by Fugro, Sonardyne and Nautronix.
- March: Divers and ROVs: evolving missions for a lower cost-base, the seminar explored the ways in which missions previously assigned to divers and vehicles is shifting, bringing with it a lower operating cost-base as a result. The presentations were given by N-Sea and Subsea 7.
- April: Late Life Challenges and Managing the Risks the event shared case studies that reflect how innovation and technology can overcome some late life challenges. Plus a technology byte which showcased local budding subsea engineers. Presentations were given by RGU, Maersk, Tracerco and Shell
- May: Embrace Technology to Maximise Economic Recovery the presentation shared case studies and tools that can shall assist over-come these barriers for both technical and commercial decision makers. The presentations were given by Astrimar and One Subsea
- June: Subsea Simulation & Analysis Techniques that Promote Real Cost Savings, a series of presentations to demonstrate that if simulation and analysis techniques are employed at the right project stage then costs and risks to projects may be reduced. A new technology techbyte on Hot Rings was also showcased. Presentations were given by Exnics, Abercus, WGK and Jee Ltd.

### Other Events

- September: Offshore Europe Deep Water Zone. SUT personnel chaired two sessions associated with exploring deeper water develop new reserves and the

## Aberdeen Branch *continued...*

- life extension technologies for existing production facilities a variety of presentations were given and well received by a large audience.
- December: Branch AGM & Dinner The formal business of the Branch AGM took place before an excellent meal and was presented by Branch chair, Chris Milner. A Head & Tails competition followed in aid of the Educational Support Fund (raised £2225) and was won by Jillian Sandison, Wood Group Kenny, who very kindly handed back the winnings to the ESF. Brian Taylor BBC Scotland's Political Editor proved an engaging and entertaining speaker.
- April: Decom North Sea Lunch & Learn. SUT's presentation focused on our mission to progress global underwater technology learning and knowledge to support advances in ocean science, subsea, and offshore engineering. The presentation was given by Paul Williams
- June: Cost Efficiencies – More bang for your buck Society for Underwater Technology and The Hydrographic Society in Scotland presented a joint seminar on a variety of efficiency based topics, presentations from Bibby, Fugro, UTEC, ASV, Schlumberger, Aquatic and Ashtead

### Training courses

Bookings for training courses have collapsed in 2016 however, as we approach the end of the year there has been a resurgence of interest in the Subsea Awareness Course and as such we hope to run a course in November.

During the first two quarters of 2016 we have concentrated on a re-vamp of the subsea awareness course material and this will continue through to the end of 2016. We hope to launch this new material in the course scheduled for November.

Generally, our courses include;

- Introduction to Subsea Facilities
- Introduction to Subsea Positioning
- Life-Cycle of Flexible Risers
- Offshore Marine Operations Awareness
- Subsea Awareness

We would like to take this opportunity to express our thanks to all course contributors, your support is greatly appreciated. Generally, SUT courses differentiate themselves from commercial courses as the presenters are industry practitioners who work in their sphere every day rather than a "paid for" course presenter. This leads to a deeper understanding of subject matter and hence the ability to transit this information to the delegates is often made easier.

### Annual sponsorship

For 2015/16, we continued with the streamlined sponsorship model with a single tier of sponsors. Sponsoring companies included: GE Oil & Gas, 2H Offshore, KD Marine, OneSubsea and Wood Group Kenny. The generous sponsorship has enabled us to conduct a variety of educational activities such as: SUT+ field trips and site visits, Christmas Lectures for Schools as well as supporting our regular evening meetings and social events. In 2016/17 we will aim to augment this single tier sponsorship approach with individual sponsorship of evening meetings where possible.

## Australia Perth Branch (incorporating Melbourne)

[www.sut.org/branch/australia-perth](http://www.sut.org/branch/australia-perth)



*Chair: Julie Morgan*

### Committee

J Morgan *Chairman*  
I Finnie *Vice Chairman*  
I Wilson *Secretary*  
R Steel *Treasurer*  
J Maninin *Events Manager*  
C Charles *Events Assistant*  
F Allan *Administrator*  
G Allegret  
N Brown  
M Casey  
S Elkhatib  
R Fricke  
A Galbraith  
S Gourvenec  
T Griffiths  
M Hemsted  
R Hendricks  
R Hubbard  
E Lindahl  
R O'Sullivan  
E Tellier  
P Upjohn  
A Walker  
I Wilson

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The Perth Branch Committee, the YES! Subcommittee and the OSIGp special interest group have all been busy this financial year with collaboration continuing to be a focus in the current constrained financial environment making it possible to put on a successful calendar of events and co-host the Subsea portion of the AOG conference and exhibition, including sponsoring students and graduate attendance at the event.

We awarded four Australian-wide scholarships and continue to pursue Subsea Engineering Registration, via a joint industry project, sponsored by this branch.

We are proud of our events and multiple ongoing projects, all providing industry exposure and interaction with a broad range of interest groups whilst continuing to give back to the local subsea community.

Support and sponsorship from the stable membership, industry, education and other learned societies continues and we are very thankful to all of those who have been involved in our success over the last year.

### Perth Branch Committee

Committee members continue to provide enthusiastic, imaginative and creative support to the branch bringing in a fresh outlook with great ideas. We would like to thank all committee members for their efforts in enabling us to reach our goals. We are indebted to the 2015 and 2016 committee, and in particular wish to express our thanks to retiring committee members who gave very generously of their time, knowledge and support. 2015 and 2016 Committee Members include:

A modest rotation of committee members brings in fresh ideas and enthusiasm which are essential to maintaining a vibrant society; however it also allows us to retain a core of experience to ensure continuity of overall vision.

### Current Perth Branch Sub-Committees:

- **Advertising:** Terry Griffiths, Marcus Hemsted, Julie Morgan & Paul Upjohn
- **AGM & Annual Dinner:** Sarah Elkhatib, Ian Finnie, Susan Gourvenec, Elizabeth Lindahl & Jatin Lodhia
- **AOG 2016:** Guillaume Allegret, Sarah Elkhatib, Karina Fraczak, Terry Griffiths, Julie Morgan, Chris Saunders, Ray Steel & Alastair Walker
- **AOG 2017:** Nick Brown, Sarah Elkhatib, Ian Finnie, Terry Griffiths, Rex Hubbard, Julie Morgan, Diederick Naude & Chris Saunders
- **Engagement:** Mark Casey, Paul Farquharson, Elizabeth Lindahl, Sarah Madrigal, Chris Saunders, Ray Steel & Paul Upjohn
- **ETM:** Paul Farquharson, Afton Galbraith, Susan Gourvenec, Marcus Hemsted, Rex Hubbard, Julie Morgan & Paul Upjohn
- **Finance:** Julie Morgan, Chris Saunders, Ray Steel & Ian Wilson
- **Golf Day:** Afton Galbraith, Oddbjorn Gjerde, Ross Hendricks, Paul Upjohn & Ian Wilson
- **Maritime Day:** Giada Bufarale, Susan Gourvenec, Liz Lindahl & Ian Wilson
- **Melbourne Core Group:** Bruce Baker, Nick Brown, David Layton, Chris Lee, Stefania Narum (Lead), Jeremy Rosen, Ray Steel & Paul Upjohn
- **Membership:** Nick Brown, Mark Casey, Terry Griffiths, Marcus Hemsted & Ray Steel
- **OSIGp:** See below for full 2015 / 2016 summary.
- **Scholarships:** Mark Casey, Sarah Elkhatib, Ian Finnie, Susan Gourvenec, Ross Hendricks, Julie Morgan & Paul Upjohn
- **Subsea Controls Down Under 2016 Conference:** Ross Hendricks, Julien Levadoux, Harry Mackay, Harvey Smith, Derek Thompson & Paul Upjohn

## Australia Perth & Melbourne Branch *continued...*

- **Subsea Engineering Registration:** Nick Brown, Afton Galbraith, Terry Griffiths, Rex Hubbard, Chris Merrick, Julie Morgan, Norman O'Rourke, Chris Saunders & Ian Wilson
- **YES!:** See below for full 2015/2016 summary.

### Finance

SUT Perth Branch ran at a deficit this financial year of approximately \$AUD 72,000. This was mainly due to fewer attendees at our courses due to the turndown in the current economic climate.

An audited Income and Expenditure Statement for the year was forwarded to Council following the finalisation of the audit in September 2016.

Next year's Budget Forecast of a deficit of \$AUD 30,000 has been forwarded to SUT in the UK.

### Branch administration

The Perth Branch continues to be effectively and efficiently managed by our three part-time personnel: Fiona Allan (Administrator: Finance/Branch/Membership), Corelle Charles (Events Assistant) and Jennifer Maninin (Branch & Events Manager). They all continue to take great pleasure in coordinating and organising all of our events, administration, membership and accounts for the society.

Since the SUT office moved to West Perth in December 2015, we've already noticed a reduction in office costs. The staff adore sitting together in the same room (ensuring even more effective communication) and enjoy being closer to many of the members – using the office as a venue for an office warming drink with the SUT Committee and holding a robot arms workshop with the YES! Committee.

Local Membership (Perth and Melbourne) as at 30 June 2016:

- Students: 230
- Individual: 211
- Corporate: 34
- Academic / Not for Profit: 3
- Global: 25

Membership continues at a stable level. There has been no increase in Membership pricing.

There has been a rate change in relation to the Membership Fees paid back to SUT in the UK (now at a flat rate of 65% rather than a sliding scale based on years of Membership).

A Membership committee vetting process is still in place to ensure only people and organisations truly involved in the underwater world are elected to the various membership categories.

### Scholarship awards

SUT Perth branch has continued with the policy of supporting students studying relevant courses in Australia and displaying a strong interest in continuing into a career or further studies in underwater disciplines.

This year we awarded four scholarships and are pleased at the continued and positive uptake of scholarships by the student fraternity. The scholarship recipients were from Curtin University and the University of Western Australia. The most worthy recipient was awarded the "Chris Lawlor" Scholarship.

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## Australia Perth & Melbourne Branch

*continued...*

### **SUT Perth Branch events**

SUT training courses, evening technical meetings and conferences continue to attract support from presenters and delegates, with many of our evening technical meetings selling out over the last year. The continued success of our events has provided financial surpluses for use in other areas of SUT activities.

### **AGM – 24 November 2015**

Our 12th AGM was held at Frasers Function Centre, Kings Park. Business was concluded and presentations were made to the Perth Branch 2016 scholarship winners. Chris Saunders was also presented with a Fellowship Award for all his long association and contribution to the Perth Branch. Jennifer, Fiona and Corelle (the Perth Branch SUT staff) were thanked for their hard work during the year. Sincere thanks were also acknowledged for the voluntary support of the presenters at courses and technical evenings as well as sponsors of events during the year.

Luke Smith, then gave a presentation on “Browse Development – science to underpin the development” which was followed by drinks and canapés. Nearly 100 delegates attended. The sponsor for the evening was Woodside Energy Ltd.

### **Annual Dinner – 13 November 2015**

Our 11th Anniversary Annual Dinner was held at the Hyatt Regency Perth and proved yet again to be a very popular event. As everyone arrived a couple of magicians amazed the 254 guests with their magic tricks. During the Chairpersons speech there was some very entertaining slides with flashback photos of our Committee and staff from 20 years ago which brought a lot of laughs to the night. An enjoyable evening was had by all.

Dinner sponsors included Shell Australia, Australian Marine Complex, Subsea Engineering Associates, Atteris and MacDermid Offshore Solutions.

### **Conferences**

The following conferences were run:

- AUT Conference 22 October 2015

The Autonomous Underwater Technology conference, is a bi-annual event held in conjunction with the AHS (Australasian Hydrographic Society).

This conference has become one of the most important networking opportunities in this field in the Australasia region allowing delegates to meet with industry leaders, academics and researchers in this innovative section of subsea development.

The Ice Breaker was held at the Parmelia Hilton where delegates enjoyed canapés and refreshments while being able to look round the conference exhibitions.

The conference was opened by Phil Wells, the AHS Chairman (WA), followed by the Keynote address by Magnus McNeil-Windle, Fugro Survey. Presentations were made by Blue Ocean Monitoring, Australian Maritime College, UTEC NCS, Autonomous Surface Vehicles Ltd, DOF Subsea UK, Kongsberg Maritime Pte Ltd, Fugro Survey, UVS Pty Ltd and Fugro AG. Julie Morgan, SUT Perth Branch Chairperson made the closing address. Session chairs were Ian Finnie, SUT Perth Vice Chair, and Anthony Kerr, DOF Subsea.

We had 92 delegates in attendance. The event was sponsored by DOF Subsea, Fugro Survey, Fastwave Communications, Neptune and Kongsberg Maritime. An impressive exhibition included UTEC Survey, Gardline, Western Advance Group, Fastwave and Kongsberg Maritime. Huge thanks to the Conference Committee: Bruce Baker, Land Surveys; Karl Bernet, Raytheon; Adam Culley, Gardline; Steve Duffield, Fugro Survey; Ian Hobbs, Fugro AG; Ross Hendricks, FMC Technologies; Ben Hunt, Gardline; and Peter Ramsay, Marine Geosolutions and Ray Steel, Freudenberg O&G Technologies.

## Australia Perth & Melbourne Branch *continued...*

- AOG (Australian Oil & Gas) Conference and Exhibition, 24-26 February 2016

The Subsea Australasia Conference and Australasian Oil and Gas Exhibition merged together for the third time in 2016 to bring us a jam packed and incredibly exciting few days.

Organising partners included SUT, Subsea Energy Australia (SEA), Subsea UK and Diversified Exhibitions. This year's subsea sessions were:

- Assessment of Subsea Asset Life – ¼ day
- Flow Assurance – One Piece of the Puzzle – ½ day
- Subsea Collaboration & Competency – ¼ day
- Subsea – CRA Pipeline & ECA Developments – ¼ day
- Subsea Innovation – Market, Field & Technology – ¾ day
- Subsea Processing – Greater Diversity & Opportunity – ½ day (including panel discussion session)
- Buckling – ¼ day
- Subsea Asset Life Management – From Drilling to Decommissioning – ¼ day
- Subsea Geohazards – ¼ day
- Subsea Pipeline Spans & Scour – ¼ day
- Subsea Repair, Remediation & Intervention – ½ day
- Subsea Structures – ¼ day

Overall feedback for the event was very positive, with SUT performing very well in terms of delegate numbers.

We were grateful to have SUT CO, Bob Allwood travel from the UK to attend.

### Courses & Site Visits

The following training courses and site visits were run:

- Achieving Reliable Subsea Systems Course, 5 August 2015
- FMC Site Visit, 12 August 2015
- Subsea Awareness Course, 24-28 August 2015 (including site visits to FMC Technologies and Oceaneering Australia)
- Introduction to Positioning & Survey Course, 16 & 17 September 2015
- Subsea Awareness Course, 14-18 March 2016 (including site visits to FMC Technologies and Oceaneering Australia)
- AIDN James Fisher Defence Site Visit, 22 April 2016
- Operating Subsea Oil & Gas Production Systems Course, 27 April 2016

### Evening Technical Meetings

The following evening technical meetings were held in Perth:

- **On the Fringes of FLNG, 19 August 2015**  
Presentations by: Jeff Baker, Lloyd's Register Energy; Francesco Piasentin, S2V Consulting Pty Ltd; Christian Wiebe, Wood Group Kenny Australia; Dr James Holbeach Wood Group Kenny Australia. Chaired by Chris Saunders, INPEX and co-sponsored by Lloyd's Register Energy and S2V Consulting.
- **Regulation, Research and Renewal, 15 October 2015**  
Presentations by: Carissa Aitken, National Offshore Petroleum Safety & Environmental Management Authority; Prof Charitha Pattiaratchi, Engineering & UWA Oceans Institute; Toby Roe, Subcon International Pty Ltd. Chaired by Afton Galbraith, Subsea Engineering Associates and sponsored by Subcon International.

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## Australia Perth & Melbourne Branch

*continued...*

- **The Sydney-Kormoran Project: Conducting a 3D Imaging Survey of the HMAS Sydney (II) and HSK Kormoran Shipwrecks, 10 February 2016**  
Presentations by: Dr Michael McCarthy, Western Australian Museum; John Rossier, DOF Subsea; Dr Andrew Woods, Curtin University; Laura Machuca Suarez, Curtin University. Chaired by Mark Casey, Odyssey Consulting Services and co-sponsored by Curtin University, DOF Subsea and WA Museum.
- **Life Extension and Protection of Assets, 6 April 2016**  
Presentations by: Abigail Anderson, Vermilion Oil and Gas Australia; Tuan Do, FMC Technologies; Dr Ian Macleod, Fremantle Museums and Collections. Chaired by Rex Hubbard, Atteris and co-sponsored by FMC Technologies and Subsea Engineering Associates.
- **The Role of Marine Science & Technology: Beyond Oil & Gas, 8 June 2016**  
Presentations by: Prof. Erika Techera, The University of Western Australia; Robert McCauley, Curtin University's Centre for Marine Science and Technology; 15th Doug Austin, James Fisher Defence. Chaired by Paul Upjohn, Roxar Emerson Process Management and sponsored by The University of Western Australia.

Full post-event reports on all Evening Technical Meetings can be found at [www.sut.org/events](http://www.sut.org/events).

The Committee is, as always, grateful to all presenters and chairpersons for their time and efforts in bringing our Evening Technical Meetings to fruition, and for those generous corporate members who support the evenings with their sponsorship.

### **Golf Day – 30 October 2015**

Our Annual SUT Perth Branch golf day was held at Wembley Golf Course again this year with a total of 27 teams battling it out, a great day was had by all. We are very grateful for the sponsors who made this possible including: Subsea Engineering Associates, FMC Technologies, OneSubsea, Applus RTD, Oceaneering Australia, Energy Agencies, Hydratight, S2V Consulting, Castrol Offshore, Granherne and Bredero Shaw.

### **OSIG Perth – including OSIGp events**

Offshore Site Investigation and Geotechnics Perth (OSIGp) is a special interest group of the SUT covering subjects relating to geology, geophysics, geomatics and geotechnical engineering, otherwise known as the 4G's.

Now in its fifth year, the OSIGp Committee comprises 15 members from industry and research with a balanced representation from the 4G's. We meet monthly and work closely with the SUT, Australian Geomechanics Society, Australasian Hydrographic Society and OSIG international groups in the UK and Houston to provide training courses, international conferences and seminars to foster best practice, knowledge transfer and dissemination.

This year has been busy with the organisation of:

- The inaugural Movie Night "What Lies Beneath" involving the presentation of six technical movies.
- "OSIGp selections of OTC 2016": an evening seminar at UWA with the presentation of four technical papers from OTC Houston and Kuala Lumpur.
- "Harnessing Wave Energy – Geo-development Challenges": co-branded with the AGS and held at Engineers Australia, four presentations were given on two wave energy schemes.

## Australia Perth & Melbourne Branch *continued...*

We have also contributed to (or continue to contribute to):

- The AOG 2016 conference where two technical sessions were organised and chaired by members of the OSIGp Committee.
- Subsea Awareness courses where presentations are given on positioning, geomatics, geophysics, geohazards and geotechnical engineering.
- OSIG 2017 international conference in London, particularly by encouraging the submission of ANZ abstracts.
- OSIG Houston's promotion of global webinars.
- OSIG UK's Pipelines Guidance Note Subcommittee.

We would like to thank all of our OSIGp committee members (listed below) for their enthusiasm and hard work, SUT and OSIG UK and Houston for their ongoing support, and our speakers and sponsors without whom these events would not have been possible.

- |   |                                      |
|---|--------------------------------------|
| • Alex Bandini-Maeder (Vice Chair 2016) | • Chris Haykin                       |
| • Fiona Chow (Chair 2016)               | • Stella Kortekaas                   |
| • Michael Cocjin                        | • Laurent Langhi                     |
| • Kevin Day                             | • Sarah Madrigal                     |
| • Gareth Edwards                        | • Peter Ramsay                       |
| • Sarah Elkhatab (Chair 2015)           | • Damon Sunderland (Vice Chair 2015) |
| • Minne Faber (Secretary)               | • David White                        |
| • Pat Fournier                          |                                      |

*Co-written by Fiona Chow (OSIGp Chair) and Minne Faber (OSIGp Secretary)*

### **YES! (Young Engineers & Scientists) – including YES! events**

YES! was formed in 2013 to build a community of young subsea professionals, promoting collaboration and networking to ultimately drive the future of the subsea industry. SUT YES! aims to:

- Create awareness of the subsea industry amongst young engineers and scientists
- Develop young engineers and scientists within the subsea industry
- Provide networking opportunities to build relationships amongst young engineers and scientists within the subsea industry.

The past year has been very exciting for the YES! sub-committee. Building on the success of the previous 12 months, a number of new committee members have brought a fresh dose of knowledge and ideas to the table. Through a variety of events (as highlighted the next page) we've been busy further promoting YES! and the local subsea industry to a wide audience, from primary school students through to young professionals recently entering the workforce.

The YES! sub-committee is also continuing to strengthen our relationship with other 'young' SUT groups around the globe, as we strive to create an international network of young subsea scientists and engineers to share knowledge, ideas and support.

The service provided by the YES! sub-committee members has been immense and their time and effort volunteered throughout the past year has allowed YES! to continue to thrive in the subsea community. These committee members are:

- Ibrahim Ayoub (2015 Chair)
- Nicholas Bardsley
- Linden Blair
- Giada Bufarale (2016 Student Liaison Officer)

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## Australia Perth & Melbourne Branch

*continued...*

- Daniel Causon
- Thomas Charlton
- Kelsie Clark
- Thomas Friberg
- Jatin Lodhia (2015/2016 Programme Leader)
- Sarah Madrigal (2015 Secretary)
- Ray Maujean
- Shane Morrissy
- Matthew Moore (2016 Chair)
- Heath Murrie (2015 Student Liaison Officer)
- Naomi Naveh (2016 Student Liaison Officer)
- Lucien Nguyen (2015 Student Liaison Officer)
- Peter Siwek
- Ben Skeen
- Daphne Rawung

The YES! Sub-Committee is excited about the year ahead in the subsea industry and can't wait for bigger and better things from YES!.

*Written by Matthew Moore (YES! Chair)*

### **YES! events**

The Young Engineers & Scientists (YES!) Sub-Committee ran the following YES! Evening events over the last financial year:

- **YES! GE Oil & Gas / Oceaneering Site Visit, 23 July 2015**  
Lead by Thomas Friberg, GE Oil & Gas and Ibrahim Ayoub, Wood Group Kenny
- **Evolution of the Industry – A Panel Discussion, 3 September 2015**  
Presentations by: Ray Farrier, Ray Farrier Consulting; Afton Galbraith, Subsea Engineering Associates; Mike Robinson, FMC Technologies. Chaired by Peter Siwek, Technip Oceania and sponsored by Woodside Energy Ltd.
- **Barefoot Bowls, 3 March 2016**  
A social event with a workshop, bowls, drinks and BBQ.
- **Design, Execution & Safety: A Young Professionals Perspective, 26 May 2016**  
Presentations by: William Wagland, OneSubsea; Aaron Pushparatnam, Technip Oceania Pty Ltd; Seamus Grainger, DOF Subsea Australia. Chaired by Heath Murrie, DOF Subsea and co-sponsored by DOF Subsea and Technip Oceania.
- **YES! FMC Technologies Site Visit 23 June 2016**  
Lead by Ross Hendricks, FMC Technologies and Matthew Moore, Atteris

Full post-event reports on all YES! events can be found at [www.sut.org/events](http://www.sut.org/events)

On top of the above, YES! committee members have also volunteered at the following industry/community events:

- SciTech National Science Week/Perth Science Festival, 15 August 2015
- PCWA Next Generation Expo, 4 September 2015
- Curtin Robofair, 6 December 2015

### **Subsea Engineering Registration**

The SUT Perth Branch continues to promote subsea engineering and related skills as a dedicated area of practice within the Australian National Engineering Register

## Australia Perth & Melbourne Branch *continued...*

(NER). The NER is administered by Engineers Australia (EA). Progress this year includes completion of the SECOMP (subsea engineering competency) Joint Industry Project, collaboration with the Australian Oil & Gas Pipeline Association (APGA) at the launch of the Offshore Pipeline Engineering Competency program, and continued communication with graduates, professionals and industry about the benefits of National Engineering Registration in Subsea Engineering and Offshore Pipeline Engineering. The Subsea Engineering Registration sub-committee lead by Ian Wilson includes eight other active members from industry and academia who are all working on a pro-bono basis to finalise the subsea engineering competency framework. The intention is to use the same framework format developed by APGA, to have this work reviewed by external industry experts and have ready for submission to EA in H1 2017. The inclusion of Subsea Engineering in the NER is expected later in 2017.

*Written by Ian Wilson, Subsea Engineering Registration sub-committee member*

### **Annual Report – Melbourne:**

SUT Melbourne has grown its membership this year. Local members have access to technical networking events, which has been made possible utilising administration and event support from Perth. In March 2016, we held a Technical Networking Event titled “Diving & ROV Forum” – a movie night and discussion with a panel of experts. It was a successful event, at room capacity, with 23 attendees. The documentary film “Lifeline” featured the successful rescue of a stranded diver who became detached from his umbilical and was a powerful way to remind us of the safety risks and mitigation measures needed in our Industry. The expert panellists were Dusty Miller, Ben Healy and David Ingall, some of whom dialled in remotely. Bibby UK provided useful information on the incident follow-up. Thanks to our Sponsors – Wood Group Kenny and AMOG Consulting.

### **Year ahead**

My second term as Chair here in Perth has continued to be challenging but still rewarding. The commitment of the branch committee and staff continues to astonish me in terms of the fruits of their efforts at fund raising and generation of new ideas.

- In 2016/17 we will be raising scholarship funds through our Golden Ticket draw at the upcoming Annual Dinner/AGM.
- For the large number of experienced engineers and scientists that have increased availability to take on new challenges we are holding a forum with a view to starting a special interest group geared to:
  - Opportunities for pro-bono or voluntary contributions to support education and the community
  - Support for mentoring, training or career episode management
  - Opportunities for collaboration and networking for near-retired and under-employed
- We continue to increase the range of underwater technology groups with which we interact and collaborate in order to best serve our members.

What else will 2016/17 hold?

## Brazil Branch

[www.sut.org/branch/brazil](http://www.sut.org/branch/brazil)



*Chairman: Prof Segen Estefen*

### Committee

Prof SF Estefen *Chairman*  
Prof M Vaz *Secretary*  
T Netto *Treasurer*  
VC Santos *Executive Manager*  
C Bonfim Silva  
P Couto  
E Labanca  
E Nakagawa  
C Paulo  
M Teixeira

### Contact

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ext. 217

Over the past 12 months, the SUT Rio Branch has continued to promote seminars on technologies and activities related mainly to offshore oil & gas sector.

### China-Brazil Forum on Subsea Technology Jointly promoted by SUT-Rio Branch and SUT-Beijing Branch and organized by COPPE – Federal University of Rio de Janeiro

The main event was the China-Brazil Forum on Subsea Technology, 16-20 April 2016 in Rio de Janeiro. The first two days were focused on presentations from Chinese and Brazilian universities and companies. The other three days dedicated to visits to COPPE – Federal University of Rio de Janeiro Labs and subsea companies as well as meetings between Brazilian and Chinese representatives to discuss technical cooperation in subsea technology. On the first day, there was the opening ceremony of the China-Brazil Joint Institute for Deep Sea Technologies.

More than 200 participants attended the presentations and the Chinese delegation had more than 30 members from China University of Petroleum (CUP) and China Ship Scientific Research Centre (CSSR). Chinese companies operating in Brazil also attended the event in addition to the Brazilian academics and engineers from various companies.

### Seminar on Multiphase Metering

1st September 2015 – 11:00 – Auditorium Rio Technology Park

Title: Subsea Inline Multiphase Metering

Presenter: Richard Streeton – FMC

30 participants.

**[www.sut.org/branch/china](http://www.sut.org/branch/china)**

## China Branch

**T**he year of 2015-2016 has seen another active programme of SUT branch activities in China. A successful programme of conferences, seminars and reports continues. The main activities were as follows:

### The 5th SUT Technical Conference 2016

The SUTTC 2016 is the fifth SUT major conference. The topic of discussion this year was the “New Generation of Subsea Production System”. This conference was held in Beijing, China, 27-30 September 2016. It was hosted by SUT China and China University of Petroleum, Beijing, and also endorsed by International Ship and Offshore Structures Congress Chinese Society of Theoretical and Applied Mechanics Chinese Ocean Engineering Society. More than 60 papers were published, including 16 invited presentations.

### China-Brazil Forum

The first China-Brazil Forum for Subsea Technology happened from 16-20 May 2016, at Federal University of Rio de Janeiro – UFRJ. It featured a Technical Program which covered challenging aspects of the deep-sea technology. China University of Petroleum, Beijing - CUPB and UFRJ were working together to reinforce academic and industrial links and cooperative work to face common technological challenges posed by the offshore industry. During the Forum, the inauguration of the China-Brazil Joint Institute of Deep-sea Technology- JIDT was carried out.

### More people take part in SUT

As a result of the SUTTC 2016 and SUTTC 2015 conferences, all attendees have submitted applications to the SUT to become members.



*Chairman: Menglan Duan*

### Committee

ML Duan *Chairman*  
 SW Zhou and HY Zeng  
*Hon. Chairmen*  
 LB Zhang *President*  
 JJ Gu *Treasurer*  
 Y Zhang *Secretary*  
 WL Dong  
 YH Gu  
 Y Huang  
 XJ Jin  
 GH Li  
 HJ Li  
 WH Li  
 XZ Li  
 ZG Li  
 Y Liang  
 BP Lu  
 L Shi  
 J Wang  
 ZP Weng  
 JM Yang  
 SB Yang  
 Z Yue

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## Houston Branch

**www.southouston.com**



*Chairman: Zenon Medina-Cetina*

### Committee

Z Medina-Cetina *Chairman*

J van Smirren *Secretary*

D Schlater *Treasurer*

J Allen *Education*

*Committee Chair*

M Ancheril *Subsea*

*Engineering and Operations*

*Committee Chair*

S Williamson *OSIG*

*Committee Chair*

A Haigh *School Touring*

*Committee Chair*

C Curran

E Doyle

D Duron

C Heins

C Johnston

S Johnson

J Jondle

P Jukes

M Kirk

R Osborne

### Contact

e communications@  
southouston.com

SUT Houston comprises an Executive Committee; two technical committees, Offshore Site Investigation and Geotechnics (OSIG) and Subsea Engineering and Operations (SEO); two non-technical committees, the Young Professionals and Education Committees; and two student chapters, Texas A&M University (SUT-TAMU) and the University of Houston (SUT-SES-UH). All are active groups that meet regularly and which have active memberships.

During the past year the Houston branch staff was renewed. Mrs. Jodi Roberts Bunyard and Mrs. Lori Smith transitioned to new job opportunities. Mrs. Patsy Rhymes assumed the coordination of all events and Ms. Araceli Lopez assumed the coordination of communications.

Below, a summary of the key activities held at the Houston branch for the period of July 2015 to June 2016.

### Networking Meetings

- 4 June 2015 at Carmelo's
- 5 November 2015 - 20 attendees
- 3 March 2016 - 63 attendees

### Scholarship fundraisers

In the 2015/2016 year, three scholarship fundraisers were organized by SUT Houston:

- 19 August 2015, Skeet Shoot (remains a popular event) - 62 attendees
- 18 September 2015, 2nd Annual Global Awards Dinner - 110 attendees
- 1 April 2016, Clay Shoot and Fish Fry (replacing golf tournament) - 44 attendees

### AGM

The last Annual General Meeting was held on 3 December 2015, where a new Branch Chair was elected. Dr. Zenon Medina-Cetina from Texas A&M University (TAMU) was elected among three candidates, the other two being Mrs. Maria Ancheril from Xodus, and Mr. Steven Johnson from Chevron. Dr. Medina-Cetina is Associate Professor at TAMU, where he leads the Stochastic Geomechanics Laboratory. He was elected twice Chair of OSIG Houston, and serves as the Faculty Advisor of the SUT-TAMU student chapter. Mr. Christopher Curran from BP, stepped down as Chair, after serving during several periods and being recognized as a founding member of the branch.

### OSIG Committee

OSIG is comprised of the following subcommittees: Short Courses, Student/Faculty Research, Mentoring and Innovation, Learning Seminars & Webinars, School Touring, and Communications. OSIG is comprised of 43 members. OSIG's activities for the 2015/2016 year have included learning luncheons, school touring programs and courses.

OSIG's Learning Seminars and Webinars Sub-committee organized a series of events including:

- 4 June 2015 - 33 attendees
- 3 September 2015, P-Cable UHR3D Seismic – What is it and when is it better? - 36 attendees
- 14 October 2015, Prehistoric Archaeology and Offshore Industry: What do they possibly have in common? - 19 attendees
- 4 February 2016, "SUT International Webinar and Learning Breakfast: "Offshore Examples of Geotechnical Centrifuge Testing" - 46 attendees
- 19 May 2016, ASV Surveying/Monitoring presented by Brian Anderson - 22 attendees



## Houston Branch *continued...*

The committee also carried out a survey to find out what technical topics were of most interest to the members in order to provide better presentations and have more impact in the events.

- 1) Recognizing Geomagnetic Storms in Marine Magnetometer data Toward Improved Archaeological Resource Investigation. (10%)
- 2) Finite Element Modeling for Geoscientists: Why do you need it and additional site investigation data is required to support it? (57%)
- 3) Salt-Sheet Emplacement and Drilling Hazards (33%)

OSIG's School Touring Sub-committee established important collaborations with key Houston's education organizations. In particular with Harris County Department of Education, obtaining access to all the STEM County's leads including all 25 school districts. OSIG's School Touring Program agreed to support the educator program at the AAPG convention in April 2017 that brings Harris Country math and science teachers (Middle and High) to George R Brown Conference Center, with a field trip and four days of access to geological and petroleum geology material, poster sessions, talks on new technology, that knowledge then goes back to the classroom with the teachers.

OSIG's School Touring Sub-committee also met with SUT Young Professionals, Young Pipeline Professionals, Sub-Sea Tie Back Foundation (Don Wells) to strategize the best way to pool and utilize like minded programs in the Houston area.

In the second quarter of this year, OSIG's School Touring Sub-committee aimed to extend their reach by integrating a Spanish version of the presentations and engaging in broader suburbs of Houston through the SUT Student Chapters (i.e SUT-TAMU, SUT-SES-UH) and SUT Young Professional Groups. Currently, the School Touring Program counts with almost 20 volunteer presenters, including SUT-TAMU students.

The subcommittee's plan for next year is to put forward the 'Seeing with Sound' presentation into a professional bound package, with DVDs and flashcards to be distributed nationally to schools and colleges. Sponsorship may be required.

In the 2015-16 School Year, 5227 students were reached by OSIG's School Touring Sub-committee:

- 20 February 2016 – HMNS – GEMS (Girls Exploring Math & Science) - over 2000 students.
- 26 February 2016 – Hamilton Middle School – 6th Grade Geology Rocks - 487 students
- 29 February 2016 – Salyards Middle School – 6th Grade Geology Rocks - 550 students
- 4 March 2016 – Arnold Middle School – 8th Grade Seeing with Sound - 460 students
- 22 March 2016 – Thornton Middle School – 6th Grade Geology Rocks - 460 students
- 24 March 2016 – CyCreek High School – 12th Grade Exploring Oceans and Seas - 100 students
- 28 March 2016 – Salyards Middle School – 8th Grade Seeing With Sound - 550 students
- 7 April 2016 – Arnold Middle School – 6th Grade Geology Rocks - 460 students
- 10 May 2016 – Aquatic Science – Fort Bend ISD 12th Grade
- 10 May 2016 – Boys/ Girls Scouts presentation Seeing with Sound - The Sub-committee agreed to support this program, which brings students, mainly middle school age to evening programs on multiple science topics, at key industry locations around the city.
- 31 May – 12 August 2016 Xplorations Summer Camp - On Wednesdays from 1-3pm engaging with Archaeology 101, Extreme Machines, Roving Robots and Treasure Hunters classes

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## Houston Branch

*continued...*

OSIG's Short Courses Sub-committee organized a series of events including:

- 14-16 September 2015 – Marine Archaeology Course
- 18-19 November 2015 – Metocean Awareness Course - 10 Attendees

### **SEO Committee**

SEO is comprised of 9 members. OSIG's activities for the 2015/2016 year have included a learning luncheon and four courses:

#### **Learning Luncheon**

- 7 April 2016 – SUT International Webinar and Learning Breakfast: Offshore Examples of Geotechnical Centrifuge Testing - 29 attendees

#### **Subsea Awareness Course:**

The Subsea Awareness Course (SAC) has been earmarked for inclusion in the scope of the SEO committee. 2016 was considered to be a challenging year for the course and the SEO committee agreed that additional members were needed to fully support the SAC going forward. Initially it was agreed that a content review would take place as a means of kick starting the support from SEO committee members.

The leading hosting companies for this course have been Technip, Offshore Inc., BP America, FMC, One Subsea, Oceaneering and Shell.

- 22-26 June 2015 - 13 attendees
- 26 July 2015 – BP Only Course
- 10-14 August 2015 - 42 attendees
- 9-13 November 2015 - 42 attendees
- 24 June 2016 -13 attendees

### **Young Professionals Committee**

The Young Professionals committee led by Chad Heins, is going through a rough time getting back on track as most companies have gone through significant organizational shifts. Currently, the Young Professionals group and the SUT team are planning a strategy to reactivate the committee's activity.

The only event carried out by the committee during the past year was the Annual Crawfish Boil on 20 April 2016, which attracted over 30 attendees.

### **Education Committee**

The Education Committee, chaired by Dr. Matthew Francheck from the University of Houston, is comprised by four members. It was in charge of reviewing applications and nominating ten students. These were awarded \$3,000 each in the form of scholarships.

### **Student Chapters**

Two SUT-H's Student Chapters were significantly active during the past year. SUT-TAMU and SUT-SES-UH. These were awarded a sponsorship of \$5,000 each to organize and develop events related to underwater technology. The leadership of both student chapters attended regularly the executive committee meetings. More information about SUT-TAMU and SUT-SES-UH can be found at:

Texas A&M University (SUT-TAMU): [www.sut-tamu.org](http://www.sut-tamu.org)

University of Houston (SUT-SES-UH): [www.subseaeng.org](http://www.subseaeng.org)

## **www.sut.org/branch/malaysia-kuala-lumpur**

## **Kuala Lumpur Branch**

**A**lthough it has been established for a few years, the Kuala Lumpur SUT branch is still in its infancy. This being said, 2015-2016 remains a good year in terms of organisation of events and participation.

We have organised a set of evening networking sessions that were all well attended by a regular group of Subsea Engineers from the local and expat community. It will be good to see more of our members and colleagues (who are not yet members) being able to join the regular participants.

We have also organised a couple of Lunch and Learn sessions that were both reasonably well attended, the first one held during our AGM in June was dealing with diving and ROV operations, and the second one, organised in August, was talking about rigid lines FJC, pipe line freespan monitoring and Life-of-Field Flow Assurance Assessment. Both giving the opportunity to participants to learn more about ongoing development in these specific fields.

The interest of the Subsea Engineers around the KL community is starting to pick up and showed that such sessions should continue in the future. For our 2016-2017 exercise, the newly appointed committee will try to maintain such sessions alive at a bi-monthly rate.

The biggest success of this year has been our first Subsea Processing conference, organised mainly by our previous Chairman, Mr Neil Oakes. A total of 14 presentations were held during the one-day, very active event. The participation of all the major players of the subsea processing world, coupled with an interesting mix of reputable contractors and some niche technology players and interested operators, all helped to make it a very lively day. We believe that this first conference was so successful that the committee have decided to make it a yearly event and hold it at a similar time this year.

Despite the current difficult market situation, the SUT KL Branch has achieved a great deal. We hope to take advantage of the integration of some new committee members, to continue and encourage participation of the subsea engineers present in Kuala Lumpur, and continue to promote knowledge and innovation sharing for the benefit of the individuals and the Underwater community



*Chairman: Marin Abelanet*

### **Committee**

M Abelanet *Chairman*  
A Das *Vice-Chairman*  
F Alhady *Secretary*  
KK Yen *Treasurer*  
M Bagnall  
R Gregson  
M Herriman  
C Joly  
J Lim  
R Marjohan  
S Natarajan  
P Thuan Lee  
C Whitney

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## London and South of England Branch

[www.sut.org/branch/london](http://www.sut.org/branch/london)



*Chairman: Brian Jones*

### Committee

B Jones *Chairman*  
K Broughton *Secretary*  
G Taylor *Hon Treasurer*  
Dr R Allwood  
C Ashcroft  
D Baker  
R Binks  
D Brown  
M Calverley  
C Cross  
B Green  
P Hayward  
S Hems  
T Jee  
A Low  
Dr G Lyons  
P Metcalf  
U O'Donnell  
T Walters

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The London and South East Branch has had a good year holding a number of meetings and a successful dinner.

The concept of the Branch is to promote co-ordination between individuals, disciplines and organisations from the Energy (Oil, Gas & Wind), Legal, Insurance and Marine sectors. This is quite unique within the Society as it brings together parties from the international markets who have significant interest in underwater technology but normally have little contact with industry.

The committee membership is well represented by members from the legal and insurance sectors who bring with them their own perspective and ideas.

A 'Young Professionals Group' has been established led by very positive individuals, several events have been held including 'Women in Marine', Careers Day to name a few, as well as various social events.

The Branch held a Black Tie Dinner in early June on the MV Edwardian cruising from the London Eye to the Thames Barrier and return. The speaker was Martin Woodward. With excellent weather, we were able to cruise the Thames in a very enjoyable manner.

Events are held both in the evening and lunchtime. The lunchtime events are of interest in that personnel in the City engaged in legal and insurance prefer that arrangement.

The Branch holds 'Lunch & Learn Events' as this best suits the requirements of the City sector including:

- Douglas Westwood – outlook
- Costa Concordia
- Marine renewable energy
- DNV

The Evening Meetings included

- Aasgard Subsea Compressor
- EMAS/Chiyoda
- Cranfield students
- Infield Forecast

Future events which are being considered include decommissioning, moorings, Arctic, pipelines and AUV gliders.

## **www.sut.org/branch/ north-of-england**

## **North of England Branch**

The North of England Branch meets on a bi-monthly basis, and has organised five technical sessions over the period. Our meetings have enjoyed good attendances with the numbers ranging up to 75 with an average of around 55. We used the International Centre for Life as our venue until the end of 2015; however, recognising the financial constraints of our local membership we took the decision to move to an alternative venue at the beginning of 2016. Since then we have been hosted by Newcastle University's School of Marine Science and Technology, who have made us very welcome. We have also been pleased to see that our student attendance has gone up as a result of the move to this venue.

### **Committee**

The committee of the North of England Branch has remained stable over the period. The current members of the committee are as follows, and represent a cross section of the local subsea businesses and Newcastle University:

### **Activities**

#### **Evening Meetings**

In September 2015, 45 people attended an evening meeting at the Centre for Life in Newcastle titled "Enhanced Oil Recovery". Dr Malcolm Storey chaired the event and introduced two speakers, as follows, who both spoke on the subject of "The Science, Technology, Engineering and Economics of Enhanced Oil Recovery":

- Professor Jon Gluyas (Dean of Knowledge Exchange, Durham University)
- Dr Chris Greenwell (Reader in Geochemistry, Durham University)

Additionally, Graeme Parkins (Managing Director, Dyer Engineering) gave an introduction to Dyer Engineering.

In November 2015, we held our AGM at the Centre for Life combined with an evening meeting titled: "Evolutions in External Inspection and Monitoring of Subsea Assets". I chaired the meeting and the talks were as follows:

- "Tracerco Discovery – The World's First Subsea Pipeline CT (Computed Tomography) Scanner Case Studies" by Kim Thye Lee (Subsea Business Director, Tracerco)
- "Marine Asset Protection using AIS Data" by Martin Connelly and Andrew Desforger (Managing Director and Technical Director respectively, UltraMAP)

The evening was attended by approximately 40 people.

In January 2016, Andy Barwise chaired a meeting at Newcastle University titled "New Developments in Seabed Geotechnical Drilling Techniques", which was attended by 75 people. We had talks from a number of speakers as follows:

- "Seabed Drilling and Seadevil" by Tim Carrington (Head of Data Acquisition and Reporting, Fugro GeoConsulting)
- "Development and Experience with the Canyon ROV Drill mk 2" by John Davies (Business Development Manager, Helix Canyon Offshore) and John Buckell (Project Manager, UTEC Geomarine)
- "The new IHC SWORD® Seabed Drilling System" by Emile Rupert (Business Development Manager, TI Geosciences)
- "The BGS RD2 Sea Bed Rockdrill" David Long and Mike Wilson (British Geological Survey)

In March 2016, Andy Roberts chaired a meeting titled: "Integrity Management of Flexible Risers" at Newcastle University, which was attended by approximately 65 people. Our talks for the evening were as follows:



*Chairman: Dr A Pople*

### **Committee**

Dr A J Pople *Chairman*  
 Dr J Baker *Hon Secretary*  
 Dr I Frazer *Treasurer*  
 J Alexander  
 P Allen  
 Dr S Benson  
 M Bingham  
 A Ennis  
 A Fuller  
 J Greenwood  
 S Read  
 A Roberts  
 E Waterman  
 M Williams  
 M Zwanenberg

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...continued overleaf

## North of England Branch

*continued...*

- An Introduction by Dr Jerry Baker (Independent Consultant, Baker Marine Technology)
- “Field experience of MAPS-FR Tensile Armor Wire Stress Measurement” by Geoff Eckold (MAPS Business Leader, GE Oil & Gas)
- “Integrated Sensing for Flexible Pipes” by Phil Nott (Senior Product Development Engineer, GE Oil & Gas)

Our May 2016 evening meeting was titled: “Offshore windfarm connections; the technology and operational experience” and was chaired by Scott Gartshore. The talks were as follows:

- “Offshore Windfarm Inter-array Cable Protection systems; an insight into operational experience and the product development” by Jack Simpson, (Senior Manager Offshore Wind, Tekmar Energy)
- “Advances in trenching techniques for offshore wind farms” by Ralph Manchester (R&D Manager, IHC Engineering Business)

Approximately 45 people attended this event, which was held at Newcastle University.

### **SUT+**

Our newly formed SUT Plus committee is now up and running and has organised our 2016 Schools Event, which will be held on 20 September at the Great North Museum (Hancock) and is titled: “Engineering under the waves”. The event will give local school and college students the opportunity to engage with our subsea community and is being sponsored by five local companies (TDR Training, Technip, SMD, GE Oil & Gas, Royal IHC).

The SUT+ group has also made its first site visit (to BEL Valves).

### **Finances**

Our activities have been funded by membership fees and sponsorship received from speakers and local companies throughout the year, which is gratefully acknowledged.

Recognising the effect of the current economic climate on a number of the companies and individuals involved in our local subsea community we have undertaken a number of initiatives to reduce costs whilst still meeting the objectives of the branch. As noted above we have moved to a new venue and we have also trialled varying pricing structures and evening lecture formats in an effort to maintain a programme that is both stimulating and affordable.

### **Future plans**

We will continue to have technical meetings bi-monthly over the next year with a recess over the summer, when we will have a committee meeting but no evening event. Our September 2016 meeting is titled: “Real time Monitoring of Subsea Trenching Assets – Developments and a Case Study” and subject of the following meeting will be underwater friction welding. Our Schools Event will hopefully become a regular fixture under our SUT+ committee as they develop their group in the North of England.



**[www.sut.org/branch/norway](http://www.sut.org/branch/norway)**

## Norway Branch

Our very successful Subsea Awareness Course (SAC) has been struggling over the last two years. Based on lack of attendees for our SAC, there have been no SAC courses in 2016. The oil industry is cutting costs, and, unfortunately, our very popular SAC courses in Bergen were apparently on that list.

We attended Underwater Technology Conference in Bergen in June to market SUT and the SAC course. The aim is to arrange a new SAC course in 2017, even with a limited number of attendees.

For some time, SUT Norway has been preparing grounds for a change from a Norwegian foreign company to a foundation. The legal problems are now being sorted out. Much time was spent providing the authorities with the documentation they required. The Norwegian authorities are now satisfied and we will now be able to change to a foundation. We will complete this work by Q4 2016.

We are presently looking in the market for a new Manager of SUT Norway, and hopefully this will be in place by the end of October. This person will take over Geir Evensen's position. We are also in the process of expanding the committee which currently only has two to three members. Due to the down-turn in the oil industry, we are also evaluating subsea activities beyond the Oil & Gas sector.



*Chairman: Nils Vågen*

### Committee

N Vågen *Chairman*  
V Fondevik  
O Hagesaether  
GA Johansen  
RD Skre

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## Singapore Branch

**[www.sut.org/branch/singapore/](http://www.sut.org/branch/singapore/)**



*Chairman: Derek Donaldson*

### **Committee**

D Donaldson *Chairman*  
S Redford *Vice Chairman*  
C Ferguson *Treasurer*  
C Campbell *Secretary*  
M Colbridge  
A Gleeson  
H Gu  
A Horsfield  
CK Lee  
W Lee  
X Liu  
G Rawlinson  
J Vaughan  
R Zwinkels

### **Contact**

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It's difficult to believe that a year has passed since I wrote the inaugural report on behalf of the Singapore SUT branch. I would love to be able say that it has all be plain sailing and that things have been easy with branch having gone from strength to strength, however despite the best efforts of a very dedicated committee the challenges that our industry has thrown at us throughout 2016 combined with transient nature of the place we call home has meant that the Singapore branch has struggled to replicate the success we enjoyed in 2015.

Despite the challenges that the committee members have faced in their own businesses over the course of the year we have maintained a core group of volunteers who have made time to meet on a monthly basis to exchange ideas whilst working together to provide our industry colleagues with access to technology and networking opportunities through our evening technical meetings.

It was agreed by the committee that we would refocus our expectations, concentrating on two technical meetings over the course of the year culminating with a networking event to be held in early December.

Our first technical meeting of the year was held in May with two academia colleagues from the Singapore University of Technology and Design presenting their research topics in soft robotic technology and pervasive monitoring of the marine environment. SMD then rounded out the evening with a comprehensive overview of their subsea mining technology and the technical challenges they faces when executing this project.

The evening was attended by around 100 industry colleagues with very positive feedback being received.

Our second technical meeting is scheduled for October with planning well underway as I write this.

As we move into the final quarter of the year we start to canvas for support on the committee to help replace some of the outgoing members, we would welcome anyone's approach who may be interested in getting involved and helping to ensure that the Singapore branch remains an important part of the subsea calendar in Singapore.

## Education and Training

**E**ducating and training the next generation, and helping ensure that today's underwater technologists have a broad understanding of their field is at the core of why SUT exists, and accordingly our Society devotes a significant resource to supporting these activities.

The most tangible result is our Educational Support Fund, which pays out non-refundable bursaries to high quality undergraduate and post-graduate university students who are studying subjects relevant to SUT's interests.

We currently have 13 undergraduates and 5 postgraduates in receipt of awards, studying subjects including Oceanography (Southampton), Marine Technology with Offshore Engineering (Newcastle), Subsea Engineering (Strathclyde), Environmental Technology (Stavanger), Offshore Ocean Technology (Cranfield), Meteorology and Oceanography (University of East Anglia) and Marine Science & Arctic Studies (Scottish Association for Marine Science).

In former years these grants were only available to UK students, now we award them to students from across the world provided that they are studying at a bona fide marine science, engineering or technology institution. Competition is keen so we have high quality students who usually obtain the highest level of degree.

The current financial dip in SUT's fortunes as a consequence of the global downturn in the oil and gas sector means that unfortunately we will have to reduce the number of students we can fund until things pick up, but when the situation does improve these young women and men will form the nucleus of the 'fresh blood' that industry will need – for example it is well known that in offshore oil and gas production the demographic is skewed in favour of older workers, and this will need to be redressed as the present generation retires. Our students are also well placed to serve the new industries that are emerging such as offshore tide and current-powered renewables, subsea mining and marine resource management.

Reiterating that SUT has a broad remit of interests in the underwater world, readers will be aware that we published a book at the end of 2015 entitled "*Can a lobster be an archaeologist? – Quirky Questions and Fascinating Facts about the Underwater World*" (ISBN 978 0 906940 55 6). The book was written by members and friends of SUT including Ian Gallet, Martin Sayer, Amanda Knight, Gwyn Griffiths, John Sharp, Moya Crawford, John Bevan, and Ralph Rayner, and has been beautifully illustrated by Rachel Hathaway. Subjects include how underwater scenes are filmed for the movies, subsea archaeology, how the internet is carried on cables across the ocean floor, how wrecks are salvaged, offshore renewable energy, marine plastics and many others – a whole raft of areas where SUT members ply their daily trade and earn a living. Members are encouraged to buy a copy for their young relatives and acquaintances (it's written for 10-12 year olds but has been favourably received by much older and younger readers) and it is available direct from SUT or from Amazon UK.

Social Media grows in uptake and influence across the world, although some forms are still blocked in certain territories. SUT has a presence on LinkedIn, Twitter and Facebook and through these last two in particular is able to engage with young people, early career technologists and ocean enthusiasts. We also place footage on YouTube and have shared material of interest with our sister Learned Societies & Professional Bodies.

As Observer Members of UNESCO's Intergovernmental Oceanographic Commission SUT has been able to contribute to knowledge exchange and capacity building policy for small islands and developing states, and get our name on the international development



*Chairman: Stephen Hall*

### Committee

S Hall *Chairman*  
 Dr RL Allwood *Secretary*  
 E Boddy *Clerk*  
 Prof L Boswell  
 L Davis-Smith  
 JAT Grant  
 R Harrington  
 D Havard  
 Prof S Huang  
 G Jackson  
 S John  
 E Kinghan  
 E Macdonald  
 Dr B MacKenzie  
 M Palmer  
 S Peplowski  
 Dr J Potts  
 D Prosser  
 Dr D Purdie  
 P Smith

## Education and Training

community map. We also contributed to the Marine Educator's Workshop held at UNESCO in June, working alongside the National Marine Educators Association from the USA, the College of Exploration, and the European Marine Science Education Association.

SUT hosted our annual Christmas Lectures at the National Maritime Museum in Greenwich in December 2015, but with a disappointing level of attendance due to last-minute cancellations by schools so for 2016 we plan to try a different approach and aim at a younger audience, focussed on the subject areas used in "*Can a Lobster be an Archaeologist?*" at venues in coastal cities where our committee members are based such as Southampton, Portsmouth, Cardiff and Liverpool. We are working with our friends at SeaVision UK, IMarEST and Lloyds Register Foundation to improve what we do and keep it up to date and relevant to the needs of schools and the wider public.

In contrast to the low attendance in Greenwich, our Aberdeen Branch had considerable success with their Christmas 2015 event, with 747 children from Primary Years 6 & 7 attending two sessions held at the Aberdeen Exhibition Centre. Featuring speakers from the Macduff Marine Aquarium, National Hyperbaric Centre and Renewable Energy sector the event was well-received by schools and bookings are strong for the repeat event in December 2016.

Overseas branches have varying levels of schools/colleges/universities engagement, with Houston leading the way through the strong student chapter at Texas A&M.

As SUT continues to evolve I anticipate that education and training will grow across the family, and be an increasingly important part of what we do.

## Educational Support Fund Management

The Educational Support Fund (ESF) aims to identify high quality students and enable them to enter the marine sector – more specifically, underwater engineering, technology and science. In so doing, we endeavour to expose them to the challenges and satisfaction of a career in the offshore sector in its widest sense.

Applications to the ESF are received from candidates from all parts of the world. The standard of applications continues to be extremely high, giving the assessment panel a very difficult task. The ESF is now managed through the Education and Training Committee with the aforementioned panel comprising of four members of the Committee.

It is not surprising therefore that the quality of supported students remains very high. In the undergraduate category five students graduated this year, four of them gaining 1st Class honours degrees and one receiving a 2:2, although the studies of this student were adversely affected by medical issues.

The Fund has now supported in excess of 285 students since 1990, most of who have gone on to relevant and successful careers in industry sectors that are relevant to the interests of the Society.

With the downturn in the oil and gas industry, which has a knock on effect on the other industry sectors that we serve, we have continued to find it very difficult to attract significant donations from industry into the ESF. The downturn in the industry has of course impacted on the overall income of the Society and as a consequence Council agreed that from 2016/17 that 10% of membership subscription income would no longer be hypothecated to the Fund. In its place Council will make an annual decision concerning the level of donation to the ESF that the Society will make from its trading account. Members of the Society have been informed of this decision prior to the start of the membership year.

There was some £4426 income to the Fund, most of which was raised in voluntary donations at our dinners in Aberdeen and London.

We shall of course continue our efforts in fund raising from an industry whose future existence is arguably dependent on the recruitment of new talent.

We should note that our overseas branches, when there is significant income available, also run similar schemes to support students and this information can be seen in their reports.

We support full-time master's students for one year (taught) courses, or their part-time equivalent. For undergraduates, we do feel that we have a moral obligation to support them over at least two consecutive years, as long as the students' reports continue to be satisfactory.

Extracting the information from the accounts, you will see that the funds carried forward at the end of the year were £202,751 of which a maximum of around £16,000 has been committed in grants for 2016–2017.

The accompanying table summarises the courses, with institutions, that our ESF supported students undertake.

### Summary of Undergraduates graduating in 2016

SAMS	<i>Marine Science and Arctic Studies</i>	1st
Liverpool	<i>Marine Biology</i>	2:2
UEA	<i>Meteorology and Oceanology (MSci)</i>	1st
Southampton	<i>Geology with Physical Geography</i>	1st
Liverpool	<i>Marine Biology and Oceanography</i>	1st

### Summary of Undergraduates continuing in 2016-2017

Southampton	<i>Oceanography</i>
Bristol	<i>Mechanical Engineering (MEng)</i>
Strathclyde	<i>Naval Architecture</i>
Newcastle	<i>Marine Tech with Offshore Engineering</i>
Newcastle	<i>Marine Tech with Naval Architecture</i>
SAMS	<i>Marine Science</i>
SAMS	<i>Marine Science</i>
Strathclyde	<i>Naval Architecture with small craft engineering</i>

### Summary of Finishing Postgraduates 2016

Southampton	<i>Oceanography</i>
Aberdeen	<i>Subsea Engineering</i>
Strathclyde	<i>Subsea Engineering</i>
Cranfield	<i>Offshore Ocean Technology</i>

## International



*Chairman: Dr David Kirkley*

### Committee

Dr DW Kirkley *Chairman*

INL Gallett *Secretary*

Dr RL Allwood

L Ayling

R Binks

J Cattnach

C Dudgeon

B Green

B Jones

D Jordan

Dr WD Loth

G Lyons

P Metcalf

J Roberts

M Witton

As in the two previous years, the International Committee has focussed on assisting the process of internationalising the Society. By June last year, the framework documents consisting of branch agreements, statements of ethical principles, and the new amended constitution were all in place. This year, there has been emphasis on communications, though there is much still to do. In April, with the retirement of Ian Gallett as International Business Development Executive, the Society lost an energetic ambassador and the International Committee lost an effective secretary. We owe Ian a great deal. When he was Chief Executive he pioneered the process of changing the Society from an inward-looking UK organisation to one with a truly international dimension. Later, when he stepped down as Chief Executive, he continued to promote the Society around the world in his new role, travelling extensively and making contacts wherever went. Unlike a trading business, SUT branches cannot be set up as a managed activity. Local members need to be persuaded that they should voluntarily start an activity and Ian was good at that. The Committee also lost the services of Jodi Roberts. She was the Society's part-time International Communications Officer based in Houston. These two departures will inevitably restrict the ability to continue expanding internationally, at least for a while.

The Society has been affected dramatically by the downturn in the offshore oil industry as described elsewhere in this annual report. This affects all branches of the Society and it will be necessary to operate in more straightened circumstances for some time to come. Initiatives were taken by Ian Gallett in China, India, Canada, and Egypt though these have not yet blossomed. Continuing efforts will be made to prevent these from fading away. In these financially more difficult times, though, activity will be primarily on consolidation of the existing organisation, which is needed anyway. With branches spread around the globe, good communication is vital. The Committee now has members in Perth and Houston, which makes participation in meetings inconvenient to say the least with a time span of 13 hours between those two locations. We have had mixed success with remote participation. To date, the best arrangement has been the simplest and cheapest with voice communication using Skype. There is still much to do to facilitate remote participation in meetings and discussions. It affects all parts of the Society and the Committee will make it a priority in the coming months.

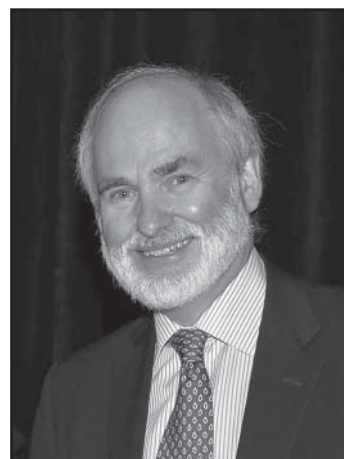
Another aspect of internationalisation is the way the Society is administered. At present, the secretariat is based in London. The question needs to be asked, "What is the most appropriate way of coordinating, administering, and supporting the international membership and their branches". It is something the International Committee needs to consider and discuss as we move forward.

## Policy Advisory

Chaired by the Society's Past President, the PAC does not meet on a regular basis but rather convenes when a need is identified. As part of the Society's review of its governance and structures in 2015 Council agreed new terms of reference for the Committee so that it could operate across all territories where SUT has an interest, that overseas branches would be included, and that there would be a formal channel, through Council, for overseas branches to raise topics for the PAC agenda.

The first meeting of the reformed PAC in November 2015 was by teleconference so as to include representatives from Houston and Perth. The topics previously raised by Council and Branches as candidates for taking on by the PAC were discussed. Those where the members thought the PAC could make a distinctive contribution, with the resources available, were listed in a report to Council. Appropriate ways of working for the PAC were considered to be:

- Encouraging the writing of position and policy papers.
- Championing national, regional or global conferences, as appropriate.
- Influencing the agendas of conferences organised by others, and working in partnership with others.
- Finding out about conferences that are on the fringes, raising awareness, providing a learned society voice and communicating with the world at large.
- Participating in the discussion meetings of the UK Parliamentary and Scientific Committee and working towards getting SUT-relevant topics raised.
- Making more use of the Internet for active communication on what we are doing.
- Engaging with SUT+, getting SUT+ groups around the world talking with each other, and providing the social media presence they are well placed to deliver.



*Chairman: Prof Gwyn Griffiths*

### Committee

Prof G Griffiths MBE

**Chairman**

Dr RL Allwood **Secretary**

R Barrett

DA Brookes

ST Culshaw

Dr R Gatliff

S Hall

Dr DW Kirkley

Dr WD Loth

Lt Cdr RJ Rogers



## Publications



Chairman: Dr Martin Sayer

### Committee

Dr MDJ Sayer *Chairman*  
 E Azzopardi *Secretary*  
 Dr RL Allwood  
 L Ayling  
 E Boddy  
 M Broadbent  
 Prof G Griffiths  
 Dr R Rayner

The Publications Committee meets approximately twice a year to consider and direct the publications originating from, or supported by, the Society. These include the publication of the academic journal, *Underwater Technology*; the Society's magazine, *UT2* and the online version *UT3*; books or conference proceedings originating from the Society's special interest groups; and the Society's website: [www.sut.org.uk](http://www.sut.org.uk).

The annual publication rate of three issues of the journal was maintained during 2015-16 (November, March and July). The *Journal* still remains in a transitional phase caused largely by the challenges of re-joining the ISI (Institute for Scientific Information, now part of Thomson Reuters) Impact Factor rating system. The journal remains "open access" with authors not presently charged for publication; it is published online at: [www.ingentaconnect.com/content/sut/unwt](http://www.ingentaconnect.com/content/sut/unwt). Past SUT conference proceedings continue to be published online at [www.onepetro.org](http://www.onepetro.org). An ongoing action for the Publications Committee is to invite a wider international membership of the journal's Editorial Board.

Although the *Journal* is not formally Impact Factor-rated by Thomson Reuters, it is evaluated using a similar citation-based system operated by the SCImago Journal & Country Rank facility. This is a publicly available portal that includes the journals and country scientific indicators developed from the information contained in the Scopus® database. The SCImago two-year citations per published document metric for *Underwater Technology*, which is the nearest equivalent measure to the formal journal Impact Factor, increased from 0.333 to 0.893 in 2015. This marked increase is thought to have been caused by the move to open access publishing.

Throughout 2016, the Committee has been examining the options for publishing the *Journal* in electronic format only. All papers published in the *Journal* are already available as open-access PDF documents on the SUT's Ingenta Connect webpages. In addition, the whole *Journal* issue will become available via an online flipviewer format. It is intended to begin e-Publishing the *Journal* from the November 2016 issue onwards.

The SUT magazine *UT2*, which is a joint venture between the SUT and Dr John Howes, was published six times in 2015-16. The magazine continues to receive good feedback from the membership; *UT3* is the online version of *UT2*.

The Publications Committee is also acting on behalf of the SUT as the dissemination partner for the EU-funded BRIDGES project (Bringing together Research and Industry for the Development of Glider Environmental Services). This project is funded for four years; more information can be found at [www.bridges-h2020.eu/](http://www.bridges-h2020.eu/).

"Can a lobster be an archaeologist? – Quirky Questions and Fascinating Facts about the Underwater World" continues to sell copies and has enjoyed exposure in the media this year with several printed and online articles written on its release. There was also various radio publicity, and an event sponsored by Subsea 7 where all the pupils in a class at Hazelhead Primary School in Aberdeen were given a free 'Lobster' book, which was also covered in several newspapers.

The Publications Committee continues to receive excellent, enthusiastic and highly organised support from the SUT. In 2015 Michaelagh Broadbent resigned her post as Journal Officer after many years of providing excellent support to the Society; she is replaced by Elaine Azzopardi who delivers editorial assistance while based at the Scottish Association for Marine Science in Oban. Emily Boddy continues as Publications Officer and works on all other SUT publications plus the website.



## Diving and Manned Submersibles

Our committee has met three times since our last report: 16 September 2015, 10 February 2016 and 18 May 2016.

As usual, the entire range of diving activities was kept under review. It was noted that the offshore industry as a whole continues to experience very challenging times with many projects either on hold or cancelled. The inshore diving industry was also relatively quiet throughout the past 12 months. On the other hand, media diving was busy in particular the work at Pinewood Studios where nearly all international underwater productions were now undertaken.

Specific issues that were considered included hyperbaric evacuation and a new ISO (18119) which had been proposed requiring all equipment to have an annual visual inspection, including cylinders; on the HSE side, the new regulations on health which are targeting overweight diving professionals (looking at waist measurements and BMI) and many divers are now being failed. It was noted that exemption from the diving regulations had been granted to allow helicopter underwater escape training for personnel working on offshore rigs using newly introduced compressed air emergency breathing apparatus.

Special presentations were made to the committee including ‘SPHL-R, the JFD Self-Propelled Hyperbaric Recovery Club’ by Brian Redden and ‘Hyperbaric Evacuation Contingency Planning’ by Gerard Laden.

Gavin Anthony was the Committee’s nomination this year for the Houlder Cup. Gavin has spent a long career at QinetiQ and is well-known throughout the diving community. We sadly lose Gavin from the committee this year due to his retirement, and Roger O’Kane also, as he retires from the Association of Diving Contractors.



*Chairman: Dr John Bevan*

### Committee

Dr J Bevan *Chairman*  
 Dr RL Allwood *Secretary*  
 E Boddy *Clerk*  
 G Anthony  
 Cdr A Bax  
 K Bazeley  
 R Bull  
 M Caney  
 B Cole  
 M Dunkley  
 P Evans  
 P Faulding  
 Dr O Firth  
 A James  
 G Laden  
 S Marine  
 A Marshall  
 G Momber  
 R O’Kane  
 R Pirie  
 Dr MDJ Sayer  
 M Seares  
 C Sherman  
 DR Shiers

## Environmental Forces



*Chairman: Prof Qingwei Ma*

### Committee

Prof QW Ma *Chairman*  
 AN Moore *Secretary*  
 Prof T Adcock  
 R Addlesee  
 Dr R Ahilan  
 Dr RL Allwood  
 Prof N Barltrop  
 Dr WJD Bateman  
 Prof PW Bearman  
 F Beiboer  
 Dr M Birkinshaw  
 Dr E Buldakov  
 D Carter  
 Prof DM Causon  
 Prof JR Chaplin  
 Dr M Christou  
 RL Davies  
 Dr KR Drake  
 Prof R Eatock Taylor  
 AJ Fyfe

The SUT Group on Environmental Forces held its usual three events during the year 2015/6. The autumn meeting (106th) was held in Oxford, in conjunction with the 'Fundamentals and Reliability of Offshore Structure Hydrodynamics' (FROTH) group final workshop. This was a continuation of the ongoing link with the group, which started in early 2012. Presentations of results and future works were heard from the contributing organisations, included Bath, City, MMU, Oxford and Plymouth Universities.

The SUTGEF (107th) winter meeting, again in Oxford, was another collaborative event, this time with the ENFORCE Group ('Extreme responses using NewWave - Forces, Overtopping and Run-up in Coastal Engineering'). The project looked at the dependence of coastal responses - run-up on a beach, overtopping and forces on a seawall - on the properties of a focused wave group, the choice of which being justified by buoy measurements off the south-west coast of England. Results of the work carried out in the COAST physical wave laboratory at Plymouth University and numerical modelling at Oxford University were presented.

The 108th meeting, at Imperial College in London, saw two presentations, firstly by Kevin Drake and Yahui Zhang from DNV-GL Noble Denton, on the analysis of mobile jack-up units going on and coming off location. The paper discussed the metocean conditions required and techniques for determining critical conditions during operations involving the establishment and termination of jack-up deployments. The second, by Shiqiang Yan from City University, on advanced CFD technologies for tackling challenges in violent wave-structure interaction, discussed the progress made on this topic at City since the initial paper presented to SUTGEF in 2013.

SUTGEF continues to provide a forum for lively debate between academics and those from industry. Meetings are well attended and give young graduate and under-graduate scientists and engineers a valuable early introduction to the work of SUT.

Dr R Gibson  
 Prof D Greaves  
 G Grewal  
 Dr J Hamilton  
 Dr G Jeans  
 M Johnson

I Leggett  
 Dr A Raby  
 Dr R Sheikh  
 Dr E Spentza  
 Dr J Spinneken  
 R Sproson

Dr R Standing  
 Prof P Stansby  
 Prof C Swan  
 Prof P Taylor  
 Dr P Tromans  
 T van den Bremer

A Watson  
 W Tan  
 R Webb  
 Dr G Weymouth  
 Dr J Zang

## Marine Renewable Energies

During the past year the Committee has held its usual four meetings with presentations from Rebecca Sykes (Lloyds Register, ‘Innovation of Renewables Technology at Lloyds Register’), Martin Murphy (Tidal Energy Ltd, ‘Getting Deltastream into the water’) and Charles Reynard (Eversheds, ‘Financing the Renewable sector’). The Committee also has reviewed recent conferences related to marine energy, both in the UK and abroad. The Committee now has several participants outside the UK who either provide written input or participate by teleconferencing. This is very encouraging given the Committee’s aim to engage more fully with international developments in the area.

The annual plan of action was reviewed and updated at the March meeting. Some topics were highlighted which had not been fully addressed in the past year and it was planned to focus on these in the coming year. A new topic was added which was the identification of research and development areas related to marine renewable energy.

The annual All-Energy Conference was held in Glasgow in May; SUT is the *Learned Society Patron* for this event. The Committee assisted with the selection of the proposed contributions to the six sessions of the wave and tidal programme and its members chaired relevant sessions at the conference.

The Lennard-Senior Prize, initiated in 2011, was awarded in 2016 to Martin Murphy (CEO of Tidal Energy Ltd), in recognition of his leadership in the installation of the Deltastream turbine in Ramsey Sound at the end of 2015. As in previous years, Committee members nominated candidates for the award and then voted on those put forward.



Chairman: Prof John Sharp

### Committee

Prof J Sharp *Chairman*  
 Dr RL Allwood *Secretary*  
 E Boddy *Clerk*  
 K Buckle  
 S Cheeseman  
 J Colby  
 P Davies  
 D Flood  
 P Fraenkel  
 INL Gallett  
 D Goncalves Collins  
 J Grant  
 J Griffiths  
 J Hulm  
 D Kerr  
 M Lumsden  
 Dr B MacKenzie  
 Dr S Merry  
 N Morgan  
 M Murphy  
 N Murphy  
 Dr R Norman

J Patten MBE  
 G Plant  
 A Reddon

D Reid  
 T Sawyer  
 Dr M Stanley

R Sykes  
 S Wilson  
 M Wright

## Ocean Resources

### Committee

TBA *Chairman*  
Dr RL Allwood *Secretary*  
Dr N Auchterlonie  
C Carleton MBE  
Prof D Cronan  
J Hind  
Dr Q Huggett  
Dr P Jackson  
Dr R Kirby  
N Langhorne  
Dr B MacKenzie  
N Macpherson  
G Plant  
J Riby  
S Shastri  
Dr PA Verlaan  
Dr K Whitelaw  
J Wolfe

Whilst this Committee did not meet during the period July 2015 to June 2016, it is recognised that the ocean's resources (other than offshore hydrocarbons and renewables) are becoming increasingly important to our well-being and ultimately perhaps the sustainability of life. It is planned to re-convene the meeting of this important Committee in the very near future.

The most recent review exercise undertaken by this Committee had seen the following subjects being the focus of its work in the future:

- Methane hydrates
- Mariculture
- Fishing
- Marine genetic resources
- Marine aggregates
- Marine archaeology/wrecks
- Law of the Sea
- Marine policy
- International Ocean Drilling Programme
- International Maritime Organisation
- OSPAR
- International Hydrographic Organisation
- Undersea mining

## Offshore Site Investigation and Geotechnics

The past twelve months have been very busy and successful for the OSIG committee which has worked very hard to maintain the momentum of previous years. The highlights of the past year are summarised below.

### Short courses for industry and students

In June 2015, a one-day masters course was held at Imperial College, London, for the seventh successive year. The course was attended by approximately 75 MSc students from Imperial College and other institutions. The committee would like to thank Richard Jardine of Imperial College London and Tim Carrington of Fugro for organising the event. The event has become a regular event for the committee and fulfils one of our key aims of attracting students into industry.

A very successful one day event dealing with Chalk in the Offshore environment was held in September and was a sell-out event with 120 attendees. Thanks go to Arup who hosted this event in their office in London.

### Guidance notes and standards

The final version of, 'Guidance notes for Geophysical and Geotechnical Ground Investigations for Offshore Renewable Energy Developments' was published in 2014 and is now available for download from the SUT website and is becoming an important reference document in the growing offshore renewables market sector.

The Tope Hole Well Engineering Guidelines have now been completed following extensive reviews and will be published by the SUT towards the end of 2016.

Work on updating the other SUT-OSIG Guidance Notes has also progressed with sub-committees continuing work on the following documents.

- Geotechnical Investigations for Marine Pipelines
- Geotechnical Investigations for Subsea Structures

The other two guidance notes are expected to reach draft status in 2016.

Members also continue to actively participate in the following international standards:

- ISO Standard 'Marine Soil Investigations'
- ISO Standard 'Geophysical Site Investigation'
- OGP-D 'Guidelines for the Conduct of Offshore Drilling Hazard Site Surveys'

### Houston and Perth Branches of the OSIG Committee

The Houston and Perth OSIG Committees continue to develop their programme of events to strengthen their ties between industry and academia. With regular exchanges of meeting minutes, there is a greater alignment and understanding of a global OSIG community

### Closing comments

The OSIG committee has continued to work hard on the short courses and guidance notes and its key focus now is preparation for the next main SUT OSIG conference in 2017.



Chairman: Andy Barwise

### Committee

A Barwise *Chairman*  
 T Carrington *Secretary*  
 P Allan  
 B Allwood  
 B Andy  
 J Arthur  
 P Baggailey  
 M Baker  
 A Benson  
 E Boddy  
 M Brown  
 N Carey  
 S Cashmore  
 E Cauquil  
 W Cleverly  
 M Cook  
 C Cotterill  
 M Cowie  
 K Dalton  
 M Finch  
 I Gallett  
 K Games  
 S Gooding  
 A Harrison

N Henderson	M Lawrence	R Orren	R Santos
R Hobbs	D Lloyd Jones	J Osborne	A Searle
D Huws	A Maconochie	J Powell	S Shastri
A Ivanovic	R Metters	T Powell	G Xu
R Jardine	N Morgan	O Ruden	
P Larkin	A Muir Wood	R Salisbury	

## Salvage and Decommissioning



*Chairman: Moya Crawford*

### Committee

M Crawford *Chairman*  
 Dr RL Allwood  
 R Aspden  
 B Browne  
 K Broughton  
 K Campbell  
 A Chamberlain  
 Prof M Elliott  
 M Hoddinott  
 C Falconer  
 C Hume  
 NJames  
 J Lanting  
 D McGeorge  
 S McKenna  
 D Orr  
 Prof N Owens  
 Prof D Paterson  
 J Noble  
 K Seath  
 H Shaw  
 B Twomey  
 W Thornton  
 J Ward  
 Prof B Wilson

This past year has shown one of both maturity and increasing confidence for the Salvage & Decommissioning Committee, as it recognised that it has largely achieved its initial aim of bringing the marine salvage, oil and gas and marine science communities together. At its inception, five years previous, the three communities had little contact; this is no longer the case, with salvage companies are now bidding for decommissioning contracts and albeit slowly, a constructive debate has begun about how best to manage man-made structures in the marine ecosystem.

In a modest way, the Committee has shown itself to be effective in creating a framework in a highly sensitive subject matters, in which people and bodies with very different skills and knowledge bases can interact. The continuing success of the annual MASTS (Marine Alliance for Science & Technology Scotland)/SUT Decommissioning Workshop, held in Glasgow in October 2016, with its broad, yet fully interactive range of disciplines was testimony to the Committee's transparent and constructive approach.

Therefore, the question for all involved was therefore - what next? It was agreed in April that the Committee should renew itself. Those who would like to stand down should feel free to do so and new people should be asked to join, in order to push forward; wreck removal will be more explicitly linked to decommissioning and salvage will be drawn out and Emergency Subsea Response will be added, in order that lessons learnt in the maritime field may be transferred and the issue of ageing infrastructure in the regional North Sea may be responsibly addressed.

In addition, it was agreed that three sub-committees would be formed, whilst working in a matrix structure, with Salvage and Emergency Subsea Response being based in London, Decommissioning and Wreck Removal being based in Aberdeen, and for the meantime, Innovation and Technology working between the two.

During 2016/17 the following cross-cutting themes will be the focus: Design for Life Cycle: Innovation in Contracts: the Effect of Materials and Substances in the Marine Ecosystem and 3D Simulation over Time.

Much thanks is given to all those who have made this initiative possible. Particular gratitude is expressed to Captain John Noble, formerly General Manager of the International Salvage Union, without whose interest and support in the very early days, it would have been so much harder to incorporate the salvage community in the SUT, as a Learned Society.



## Subsea Engineering and Operations

In my last report, I mentioned that some members of the Subsea Engineering and Operations Committee (SEOC) had been co-opted into the recently formed London and South of England Branch to support the organisation of events in this nascent branch. This arrangement between the SEOC and the growing London and South of England Branch was maintained throughout the 2015 to 2016 reporting period resulting in the SEOC continuing to be stood down as a standalone committee.

Those working in the subsea oil and gas industry will know that the last year has been particularly difficult; the continued depressed oil price (lower for even longer) has resulted in a drastic reduction in available work as previously sanctioned projects approach completion and new projects continue to be postponed. Those new projects which have been sanctioned are chased by an industry starved of work to support our people, vessels and manufacturing facilities.

It is still unclear when our industry will rebound or what this rebound, our new normal, will look like but I suspect our industry will look very different. Many skilled and experienced engineers have moved out of the industry; some for the short term, others for good.

Standardisation and Simplification, Technology Development, and even Disruptive Innovation can be our contribution to improving the economic viability of subsea developments and providing fit for purpose facilities. The SEOC together with the London and South of England had arranged the following evening presentations to reflect the diversity of interests and the challenges being faced by our members.

- October 2015 – “Subsea Friction Welding with ROVs and Divers” by Dave Gibson (Technical Authority Friction Welding) and Stuart Harvey (Product Champion for Friction Welding) both from Proserv. Two major projects have been completed using ROVs to perform friction welds on wind farm piles and a Floating Production System with newly developed equipment. This process has also been used with ROVs for welding to subsea pipelines and production assets and with divers for structural repairs and retrofitting Cathodic Protection. The presentation gave an overview of the system and covered recent case studies.
- November 2015 – “Metocean Data for Design and Structural Monitoring: Instrumentation, Analysis and Industry Challenges” by Ambre Tréhin and Stuart Killbourn both from Fugro. The first presentation discussed how in-situ metocean measurements and numerical models both provide useful metocean data and why they should not be seen as alternatives but rather as complementary sources, which when used together produce the highest quality design criteria. The second presentation provided a whistle stop tour of structural monitoring for subsea wellheads, risers and platforms and how instrumentation systems deliver performance data to inform operational decisions in a timely manner.
- January 2016 – “Global Offshore Prospects” by Matt Cook (Analyst), Matt Adams (Researcher) and Steve Robertson (Director) from Douglas Westwood. The speakers presented Douglas Westwood’s outlook for the next five years and considered both the near-term macroeconomic outlook and specific sector drivers for a variety of offshore energy business services and equipment lines. Analysis was drawn from the firm’s published research and extensive proprietary in-house data, in addition to the insight and experience gained from the many consulting and transactions engagements completed throughout the past 12 months. Specific sector focus included offshore CAPEX and OPEX, offshore drilling, subsea production and associated services and technology.

...continued overleaf



Chairman: Iain Knight

### Committee

I Knight *Chairman*  
 Dr RL Allwood *Secretary*  
 M Avent  
 D Bruton  
 Dr R Chandwani  
 C Cross  
 P Ferguson  
 S French  
 P Hawthorn  
 M Hudson  
 A Hunt  
 Dr R Jain  
 P Jordan  
 R Luff  
 J McGrail  
 J Robson-Brown

## Subsea Engineering and Operations

*continued...*

- February 2016 - “Subsea Compression – Lessons from Åsgard” by Marco Gabelloni, Advanced Subsea Technology, Aker Solutions. This presentation focused on the Åsgard subsea compression system and some of what went into delivering the project along with a number of key lessons learned along the way. Robustness and flexibility of the technology were considered against expectations and actual operational performance. Some of the transferable technologies generated through the project, and wider technology programme were also be discussed.
- April 2016 – “A New Method of Reeled Rigid Pipelay in Ultra-deep Water – A Game Changer” presented by John Meenaghan, VPGlobal Offshore Operations, EMAS AMC. This presentation focused on the key features of this game-changing reeled pipelay method using multiple, transportable reels combined with heavy lift capability to reduce transit time and to eliminate the need for direct spooling by the installation vessel, retaining the vessel in field or in very close proximity throughout the entire project.
- May 2016 – “All Subsea”: Feasibility Assessment of the Subsea Factory” by Cranfield MSc students and chaired by Alex Hunt, Technology Director, Woodview Technology Limited. In a recent position paper, DNV GL reviewed some of process steps required to process raw well stream fluids into products ready for market. However, the paper limited its scope to an FPSO with a relatively simple processing scheme. A team of Cranfield University M.Sc. students was presented with the challenge of extending this work. The goal of this project was to include as many of the processing steps as possible, to recommend whether they should be carried out subsea or onshore and to identify items that require further development and qualification.
- June 2016 – “Infield” by Kieran O’Brien, Energy Researcher, Infield. Infield presented an updated macroeconomic overview for the oil and gas and market forecasts for various sectors within the industry. The presentation also provided a detailed look at the subsea and ROV markets examining manufacturer performance and demand dynamics over the coming five years.

All these presentations were well received by the members and with good levels of attendance at most meetings. As well as the formal presentations, an important part of the evening meetings is the opportunity for networking and meeting ex-colleagues and old friends. I am pleased to report that this was also successfully achieved (despite the sometimes gloomy circumstances).

To end on a positive note, these talks continue to provide an informative and friendly meeting point for those involved in the subsea industry in the London area, On behalf of the SEOC and the London and South of England, I would like to thank all those who have contributed their time and effort to support these activities.

## Panel on Underwater Robotics (formerly Underwater Robotics Group)

The SUT/ECOR Panel on Underwater Robotics held its annual meeting on September 28th, 2015. The National Oceanography Centre in Southampton, United Kingdom hosted the meeting. At this second, well-attended meeting of the revitalised Panel for Underwater Robotics the new Terms of Reference for the Panel were ratified. The international Panel membership base spans six countries and three continents.

A significant ongoing Panel initiative includes an article on the current perceived state of advanced autonomy in the global underwater robotics community. The paper explores the important considerations and critical perceptions of underwater robotics users when it comes to deploying onboard real time adaptive mission planning, and non-script based programming. It will be submitted for publication very soon. The Panel is working toward updating its presence within the SUT website in the coming months.

The next Panel meeting is scheduled for Tokyo immediately following the AUV 2016 conference being held at the University of Tokyo on 6-9 November 2016. SUT is a technical co-sponsor of this premiere underwater technology conference.

In January of 2016, Mr. James Ferguson passed away. James was a core member of the Specialist Panel on Underwater Vehicles and former President of the Engineering Committee on Oceanic Resources. He was truly a builder in the global underwater vehicle community. In addition to his sharp intellect, considerable experience and technical knowledge, James' colourful tales and frank manner will be genuinely missed.

### Committee

N Bose *Chairman*  
Dr R Lewis *Secretary*  
R Mills *Vice Secretary*  
K Birch  
Dr M Brito  
Prof. G Griffiths MBE  
D Hook  
J Jamieson  
C Kaminski  
A Lubbes  
Dr G Meinecke  
Dr J Opderbecke  
Dr A Phillips  
Prof. A Wåhlin  
Dr Jingjing Xu

## Underwater Science Group



*Chairman: Dr Martin Sayer*

### Committee

Dr MDJ Sayer *Chairman*  
Dr RL Allwood *Secretary*  
P Baker  
Dr I Gibb  
S Hall  
Dr Q Huggett  
Dr A Jensen  
N Langhorne  
Dr B MacKenzie  
S Marine  
G Momber  
H Powell  
R Powell

The Underwater Science Group has a large and varied membership. Although it has not met over the past 12 months, the facility provided by the SUT continues to afford a forum for discussion of underwater science, the review of diving technologies employed for the delivery of science and the appraisal of underwater scientific methods. One of the continuing strengths of the group is that it provides an opportunity by which academia and industry can cooperate on and discuss issues of common scientific interest but from differing operational perspectives. This is very much reflected in the membership of the group which has representatives from the university, research council, charity, industry and military sectors. In addition, the group has membership with scientific and archaeological interests. The group maintains its broad membership mainly through the addition of corresponding members to those who regularly attend the meetings and through links with other underwater science groups in Europe, the United States, India, Australia and New Zealand.

The raising of the scientific profile of the Society's journal Underwater Technology remains a key area for the underwater science group. The USG is working to generate a more consistent stream of submissions to include topical review articles that are pertinent both to the fields of underwater science and underwater technology, and through topical special issues. The group continues to support the editorial board of the Society's journal by maintaining a membership with a broad inter-disciplinary range of scientific knowledge which helps to underpin the formal peer-review framework for journal submissions.

Members of the USG contributed to the 2nd European Conference on Scientific Diving which was held in Sweden in May 2016 and are involved with future similar meetings to be held in Portugal in 2017, the UK in 2018 and Poland in 2019. Selected papers from the 2nd conference will make up a Special Issue of the Journal in 2016.

**Society for Underwater Technology  
Report and Consolidated Financial Statements  
for the year ended 30 June 2016**

**Company Number 932590  
Registered Charity 256659  
Scottish Charity Number: SCO43942**

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**Society for Underwater Technology**  
**Consolidated Financial Statements for the year ended**  
**30 June 2016**

**Legal and Administrative Information**

The Council Members, who are the Trustees for the purpose of Charity Law, and also the Directors and Members for the purpose of Company Law, present their Report together with the Financial Statements for the year ended 30 June 2016.

President:	Dr D W Kirkley
Chairman and Vice President:	P Metcalf
Hon Treasurer:	M G Cook
Hon Secretary:	D Jordan
Chief Executive (CEO):	Dr R Allwood
Registered Office:	1 Fetter Lane London EC4A 1BR
Registered Charity:	256659
Company Number:	00932590
Auditors:	Nunn Hayward LLP Sterling House 20 Station Road Gerrards Cross Buckinghamshire SL9 8EL
Principal Bankers:	Barclays Bank plc and Bank of Scotland plc
Solicitors:	Hart Brown 2 Jenner Road Guildford Surrey GU1 3PW



**Society for Underwater Technology  
Council Members' Annual Report including Strategic Report  
30 June 2016**

**STRUCTURE, GOVERNANCE AND MANAGEMENT**

The Society's governing document is the Memorandum and Articles of Association and its full name is the Society for Underwater Technology Limited. The Society is a registered company limited by guarantee and a registered charity.

**Council Members and their Interests**

The Members serving on the Council throughout the year were as follows:

Dr D W Kirkley (Appointed Dec 2015)	M G Cook	A Barwise (Appointed Dec 2015)
P Metcalf	M D Jordan	R Farrier (Appointed Dec 2015)
Dr W Loth	J Mann (Appointed Dec 2015)	R A Macdonald (Appointed Dec 2015)
Dr M D Sayer	Prof Gwyn Griffiths	C J Curran (Appointed Dec 2015)
D A Brooks	T A Powell	D M Saul (Appointed Dec 2015)
S P Hall	D J Pliszka	A Phillips (Resigned Dec 2015)
Prof D Newman (Resigned Dec 2015)	M M Crawford	M Theobald (Resigned Dec 2015)
		Dr C P Summerhayes (Resigned Dec 2015)

None of the Members of the Council has any financial interest in the Society that requires disclosure under the Companies Act 2006. For Related Party transactions please see notes 12 and 25.

Council Members are appointed for three years by a ballot among members of the Society (members comprising the classes of Fellow, Individual Member and Corporate Member), and are drawn from among these Members. Candidates must be proposed and seconded by any two other Members. Ballot forms must be sent to Members twenty-eight days before the election, which is by simple majority, and this shall take place seven days before the Annual General Meeting. Those elected shall hold office from the conclusion of this Annual General Meeting. At the end of three years, a Council Member may stand for re-election, but no Member of Council may serve for more than six consecutive years.

New Council Members are not provided with a formal induction pack following their election, but are briefed verbally at the first meeting.

**Organisational Structure**

A Board of Trustees (The Council) of up to or similar to 18 members, who meet quarterly, administer the Society. A Chief Executive (CEO), who's not a trustee, is appointed by The Council to manage the day to day operations of the Society.

Branches of the Society are established under the authority of Council in accordance with the Memorandum and Articles of the Society. They will have their own organising committee with elected officers.

The results of branches of the Society whereby the UK charity either has control, or the branch is not deemed to be administratively autonomous are consolidated in the Financial Statements.

**OBJECTIVES AND ACTIVITIES**

The Society is principally engaged in the promotion of awareness in all aspects related to underwater technology. Its Mission and Strategic Vision are described as follows:

***Mission***

The Society for Underwater Technology (SUT) is an international body actively promoting the development, dissemination and exchange of ideas, information and technology arising from or related to the underwater environment.

***Strategic Vision***

To maintain and develop SUT as the foremost society worldwide focusing on underwater technology, building on a reputation for high standards in publications, conferences and training courses; having a growing membership in the UK and abroad; and having significant influence with government and industry in relevant policy areas, and encouraging people to attain suitable qualifications and enter the field of underwater technology.

**Society for Underwater Technology**  
**Council Members' Annual Report including Strategic Report Cont/d**  
**30 June 2016**

**Public Benefit**

In keeping with the Charity Commission's key principles that there must be an identifiable benefit to the public or a section of the public, the Society has undertaken the following activities during this financial year:

- Through its Educational Support Fund (ESF), it has supported 13 undergraduate students on relevant courses at a total cost of £26,000 (2015: £30,000).
- Through its Educational Support Fund (ESF), it has supported 5 postgraduate students on relevant courses at a total cost of £17,000 (2015: £15,353).
- Provided free of charge the most highly acclaimed on-line magazine in the field of underwater technology and sub-sea engineering, entitled UT<sup>3</sup>.
- Has organised free of charge Christmas Lecture Programmes in underwater technology for Schools in London, Portsmouth, Cardiff and Aberdeen.
- Provided numerous high quality subsidised training courses for industry.

**Grant Making Policy**

Grants are awarded to high-quality students at either undergraduate or postgraduate (one-year taught MSc) level undertaking courses relevant to the area of interest of the Society with the aim of encouraging more entrants to the marine disciplines.

**STRATEGIC REPORT**

**Achievements and Performance**

We have referred to the guidance contained in the Charity Commission's general guidance on public benefit when reviewing our aims and objectives and in planning our future activities.

The Unrestricted Funds of the Group made a deficit of £314,280 after allowing for £2,027 in gains on investments, £10,196 for grants and awards and a transfer to the Educational Support Fund of £nil. The Restricted Funds (The Educational Support Fund) shows a deficit for the year of £37,494 including £403 in gains on investments and making grants and donations of £43,000. Overall the Group made a net deficit of £351,774 for the year. Please also refer to the Chairman's Report.

**Financial Review**

*Reserves Policy*

Free reserves are established and reviewed to ensure that the Society retains a level of funds to meet its forward obligations and to ensure it can reasonably maintain a level of service in line with its objectives. The Council Members consider this to be a minimum of 50% of average annual resources expended.

*Educational Support Fund*

The Educational Support Fund is a restricted fund in accordance with the Statement of Recommended Practice. The Members of the Council feel this name to be more appropriate given the purpose of the fund.

*Investments*

There are no formal restrictions on the investments made by the Society.

Currently, the primary objective of holding fixed assets investments is the security they offer rather than the income that is generated. Investment income is shown in note 7 of the accounts and totalled £11,681 for the year (2015: £10,872) and a gain of £2,430 (2015: £10,352) was recognised on revaluation. Given this primary objective, the Members are satisfied with the returns the investments have provided in the period.

**Plans for Future Periods**

Please refer to the Chairman's Report for future plans and developments.

**Principal Risks and Uncertainties**

The Council Members actively review the major risks which the charity faces and confirm that they have established systems to mitigate the significant risks.

*Operational Risk*

These systems are being put into a more formalised structure and are designed to reduce the likelihood of the risk and to lessen the impact on the Society should those risks materialise. Key risks at present are assessed as being associated with the Society's necessary global expansion and the concomitant development of IT structures to support this. However, no reason is seen to amend further the Reserves Policy as detailed above.

**Society for Underwater Technology  
Council Members' Annual Report including Strategic Report Cont/d  
30 June 2016**

**Principal Risks and Uncertainties continued**

*Financial Risk*

The Members remain cautious in terms of the Society's investment strategy and are satisfied they have taken appropriate steps to ensure that reserves are not placed at any undue risk. During the period and at the Balance Sheet date, the majority of reserves were held in either current or deposit accounts with High Street banks. The make-up of fixed asset investments is given in note 16 of the Financial Statements. The majority of these investments are placed in two Charities Official Investment Funds.

*Going concern*

The Members have given due consideration to the ability of the Society to continue as a going concern. Following the implementation of significant cost control measures, the increase in uptake for subsea events as compared to the 2015/16 year, the continued support of its membership and the relative improvement in the oil industry, the Members are satisfied that the going concern basis remains appropriate. Further, the Society believes that although reduced from prior years, the level of unrestricted funds held remains sufficient to support the activities going forward.

**FUNDS HELD AS CUSTODIAN TRUSTEE ON BEHALF OF OTHERS**

Funds held as custodian trustee on behalf of others are shown in note 23 of the Financial Statements.

**STATEMENT OF COUNCIL MEMBERS' RESPONSIBILITIES**

The Council Members are responsible for preparing the Report and the Financial Statements in accordance with applicable law and regulations.

Company Law requires the Council Members to prepare financial statements for each financial year. Under that law the Council Members have elected to prepare the financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law). Under company law the Council Members must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Society and of the surplus and deficit of the Society for that period. In preparing these financial statements, the Council Members are required to:

- observe the methods and principles in the Charities SORP;
- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Society will continue its activities.

The Council Members are responsible for keeping adequate accounting records that are sufficient to show and explain the Society's transactions and disclose with reasonable accuracy at any time the financial position of the Society and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the Society and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

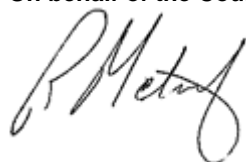
**STATEMENT AS TO DISCLOSURE OF INFORMATION TO AUDITORS**

So far as the Council Members are aware, there is no relevant audit information (as defined by Section 418 of the Companies Act 2006) of which the Society's auditors are unaware, and each Council Member has taken all the steps that he or she ought to have taken as a Council Member in order to make himself or herself aware of any relevant audit information and to establish that the Society's auditors are aware of that information.

**AUDITORS**

A resolution proposing that Nunn Hayward LLP be reappointed as auditors of the Society will be put to the Council Members.

**On behalf of the Council**



**P Metcalf  
Chairman of the Council**



**D Jordan  
Honorary Secretary**

**Dated: 22 September 2016**

**1 Fetter Lane, London EC4A 1BR**

**Independent Auditors' Report to the Trustees of  
Society for Underwater Technology  
30 June 2016**

We have audited the financial statements of The Society for Underwater Technology for the year ended 30 June 2016 which comprise the Consolidated Statement of Financial Activities, the Group and Company Balance Sheet and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

This report is made solely to the parent charitable company's members (who are the trustees for the purposes of Charity Law and also the company's members and directors for the purposes of Company Law and are known within the Charity as the Council Members), as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and to the Charity's Trustees, as a body, in accordance with regulations made under Section 154 of the Charities Act 2011. Our audit work has been undertaken so that we might state to the Council Members those matters we are required to state to them in an Auditors' Report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the parent charitable company's Council Members as a body, for our audit work, for this report, or for the opinions we have formed.

**Respective responsibilities of council members and auditors**

As explained more fully in the Statement of Council Members' Responsibilities, the Council Members (who are also the directors of the company for the purposes of Company Law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. We have been appointed as auditors under the Companies Act 2006, Section 151 of the Charities Act 2011 and Section 44(1)(c) of the Charities and Trustee Investment (Scotland) Act 2005 and report in accordance with those Acts. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's (APB's) Ethical Standards for Auditors.

**Scope of the audit of the financial statements**

A description of the scope of an audit of financial statements is provided on the APB's website at [www.frc.org.uk/apb/scope/private.cfm](http://www.frc.org.uk/apb/scope/private.cfm).

**Opinion on financial statements**

In our opinion the financial statements:

- give a true and fair view of the state of the group's and the parent charitable company's affairs as at 30 June 2016 and of the group's incoming resources and application of resources, including its income and expenditure, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006, the Charities Act 2011, the Charities and Trustee Investment (Scotland) Act 2005 and regulations 6 and 8 of the Charities Accounts (Scotland) Regulations 2006 (as amended).

**Opinion on other matter prescribed by the Companies Act 2006**

In our opinion the information given in the Council Members' Annual Report including Strategic Report for the financial year for which the financial statements are prepared is consistent with the financial statements.

**Matters on which we are required to report by exception**

We have nothing to report in respect of the following matters where the Companies Act 2006, the Charities Act 2011 and Charities Accounts (Scotland) Regulations 2006 (as amended) requires us to report to you if, in our opinion:

- the parent charitable company has not kept adequate and sufficient accounting records, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent charitable company's financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of Council Members' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

**Tom Lacey (Senior Statutory Auditor)**  
for and on behalf of Nunn Hayward LLP, Statutory Auditor  
Nunn Hayward LLP is eligible to act as an auditor in  
terms of Section 1212 of the Companies Act 2006

**Sterling House  
20 Station Road  
Gerrards Cross  
Buckinghamshire  
SL9 8EL**

**Date : 13 October 2016**

**Society for Underwater Technology**  
**Consolidated Statement of Financial Activities**  
**(Incorporating the Income and Expenditure Account)**  
**For the year ended 30 June 2016**

	Note	Unrestricted Funds £	Restricted Funds £	Total 2016 £	Total 2015 £
<b>Income</b>					
Donations and legacies	3	540	4,426	4,966	5,972
<i>Income from charitable activities:</i>					
Memberships, conferences and events	4	394,896	-	394,896	733,258
<i>Income from other trading activities:</i>					
Other incoming resources		-	-	-	-
Investment income	7	11,004	677	11,681	10,872
<b>Total income</b>		<u>£ 406,440</u>	<u>£ 5,103</u>	<u>£ 411,543</u>	<u>£ 750,102</u>
<b>Expenditure</b>					
<i>Expenditure on charitable activities:</i>					
Charitable activities	8	722,747	43,000	765,747	835,260
<b>Total expenditure</b>		<u>£ 722,747</u>	<u>£ 43,000</u>	<u>£ 765,747</u>	<u>£ 835,260</u>
<b>Net income / expenditure before gains / (losses) on investments</b>		(316,307)	(37,897)	(354,204)	(85,158)
Net gains / (losses) on investments	16.3	2,027	403	2,430	10,352
<b>Net income / expenditure</b>		<u>(314,280)</u>	<u>(37,494)</u>	<u>(351,774)</u>	<u>(74,806)</u>
Transfers between funds		-	-	-	-
<b>Net Movement in Funds</b>		<u>(314,280)</u>	<u>(37,494)</u>	<u>(351,774)</u>	<u>(74,806)</u>
<b>Reconciliation of funds</b>					
<b>Total funds brought forward</b>		624,640	240,922	865,562	947,341
Gains/(losses) on foreign fund balances		2,623	-	2,623	(6,973)
<b>Total funds carried forward</b>		<u>£ 312,983</u>	<u>£ 203,428</u>	<u>£ 516,411</u>	<u>£ 865,562</u>

Net income is derived from continuing operations for the above two financial years.

All gains and losses recognised in the year are included above. A deficit of £354,204 (2015: £85,158) arises for the year for Companies Act purposes comprising the net income / (expenditure) before other recognised gains as above, together with realised and unrealised gains / (losses) on investments.

The notes on pages 8 to 18 form part of these financial statements

**Society for Underwater Technology**  
**Consolidated Balance Sheet**  
**As at 30 June 2016**

	Note	2016	2015
		£	£
<b>Fixed assets</b>			
Tangible assets	15	10,203	19,140
Investments	16	247,416	244,664
		<u>257,619</u>	<u>263,804</u>
<b>Current assets</b>			
Publications stock	17	27,878	20,697
Debtors	18	131,608	120,624
Cash at bank and in hand		175,704	558,174
		<u>335,190</u>	<u>699,495</u>
<b>Creditors: Amounts falling due within one year</b>	19	76,398	97,737
<b>Net current assets</b>		<u>258,792</u>	<u>601,758</u>
<b>Net assets</b>		<u>£ 516,411</u>	<u>£ 865,562</u>
<b>Funds of the charity:</b>			
Restricted income funds	22	203,428	240,922
Unrestricted income funds		312,983	624,640
		<u>£ 516,411</u>	<u>£ 865,562</u>

Total funds as stated above include a Revaluation Reserve of £131,809 (2015: £129,379) (see note 22) and a Foreign Currency Translation Reserve of £(10,275) (2015: £(12,898)).

Approved by the Council on 22 September 2016 and signed on its behalf by:



**P Metcalf**  
**Chairman of the Council**



**D Jordan**  
**Honorary Secretary**

**Company Number: 00932590**  
**Registered Charity Number: 256659**

The notes on pages 8 to 18 form part of these financial statements.



**Society for Underwater Technology**  
**Balance Sheet**  
**As at 30 June 2016**

	Note	£	2016 £	£	2015 £
<b>Fixed assets</b>					
Tangible assets	15		10,203		19,140
Investments	16		247,416		244,664
			<u>257,619</u>		<u>263,804</u>
<b>Current assets</b>					
Publications stock	17	27,878		20,697	
Debtors	18	126,825		113,832	
Cash at bank and in hand		149,690		539,834	
		<u>304,393</u>		<u>674,363</u>	
<b>Creditors: Amounts falling due within one year</b>	19	73,931		95,743	
<b>Net current assets</b>			<u>230,462</u>		<u>578,620</u>
<b>Net assets</b>			<u>£ 488,081</u>		<u>£ 842,424</u>
<b>Funds of the charity:</b>					
Restricted income funds	22		203,428		240,922
Unrestricted income funds			284,653		601,502
			<u>£ 488,081</u>		<u>£ 842,424</u>

Total funds as stated above include a Revaluation Reserve of £131,809 (2015: £129,379) (see note 22).

Approved by the Council on 22 September 2016 and signed on its behalf by:



**P Metcalf**  
**Chairman of the Council**



**D Jordan**  
**Honorary Secretary**

**Company Number: 00932590**  
**Registered Charity Number: 256659**

The notes on pages 8 to 18 form part of these financial statements.

**Society for Underwater Technology**  
**Notes to the Consolidated Financial Statements**  
**For the year ended 30 June 2016**

**1. Accounting policies**

The principle accounting policies adopted, judgements and key sources of estimation uncertainty in the preparation of the financial statements are as follows:

**a) Basis of preparation**

The financial statements have been prepared in accordance with Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102 – effective 1 January 2015) - (Charities SORP 2015), the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102), Charities Act 2011, Companies Act 2006, the Charities and Trustee Investment (Scotland) Act 2005 and the Charities Accounts (Scotland) Regulations 2006 (as amended).

Society for Underwater Technology meets the definition of a public benefit entity under FRS 102. Assets and liabilities are initially recognised at historical cost or transaction value unless otherwise stated in the relevant accounting policy note(s).

The legal and actual status of affiliated operations is periodically assessed by the charity. As a result the charity concludes that the operations in Perth (Australia), Houston (USA), Melbourne (Australia), Nigeria, Rio de Janeiro (Brazil), Kuala Lumpur (Malaysia) and Beijing (China) do not qualify as subsidiaries under the Companies Acts 2006 or as branches under the guidance laid out by the Charities SORP (FRS 102). The detailed review of the constitutions and operations concluded that they are administratively autonomous and should therefore not be consolidated. The Society for Underwater Technology Norway NUF was established as a Norwegian branch of a foreign enterprise (NUF). The constitution of this operation varies from those mentioned above and it qualifies as a branch under the Charities SORP (FRS 102) as a result Consolidated Accounts have been prepared.

The presentation currency is £ Sterling rounded to nearest £1.

**b) Reconciliation with previous Generally Accepted Accounting Practice**

In preparing the accounts, the trustees have considered whether in applying the accounting policies required by FRS 102 and the Charities SORP (FRS 102), the restatement of comparative items was required.

The nature of changes arising on transition is explained in Note 26.

**c) Preparation of the accounts on a going concern basis**

The Members have given due consideration to the ability of the Society to continue as a going concern. Following the implementation of significant cost control measures, the increase in uptake for subsea events as compared to the 2015/16 year, the continued support of its membership and the relative improvement in the oil industry, the Members are satisfied that the going concern basis remains appropriate. Further, the Society believes that although reduced from prior years, the level of unrestricted funds held remains sufficient to support the activities going forward.

**d) Group financial statements**

The financial statements consolidate the results of the Society and its Norwegian branch, the Society for Underwater Technology Norway NUF, on a line by line basis. A separate Statement of Financial Activities and Income and Expenditure Account for the Society has not been presented because the Society has taken advantage of the exemption afforded by section 408 of the Companies Act 2006.

**e) Fund accounting**

The principles of fund accounting, as described in the Statement of Recommended Practice, Accounting and Reporting by Charities: the Charities SORP (FRS 102), have been applied in the preparation of these financial statements.

Funds held by the charity are either:

*Unrestricted general funds*

These are funds which can be used in accordance with the charitable objects at the discretion of the Trustees.

*Restricted funds (The Educational Support Fund)*

These funds can only be used for this purpose within the objects of the charity. The income from investments held under restricted funds is itself restricted.

**Society for Underwater Technology**  
**Notes to the Consolidated Financial Statements Cont'd**  
**For the year ended 30 June 2016**

**1. Accounting policies – cont'd**

**f) Tangible fixed assets**

Assets are capitalised at cost when the economic benefit of ownership will spread over a number of years.

Depreciation is provided on tangible fixed assets at rates calculated to write off the cost less estimated residual value of each asset evenly over its expected useful life as follows:

Office furniture and equipment	20% reducing balance
Computer	33% straight line

**g) Publications stock**

Stock is valued at the lower of net realisable value and cost.

**h) Investments**

Investments are valued at the prevailing market price as at the Balance Sheet date. Realised and unrealised gains (or losses) are reflected in the Statement of Financial Activities in the year in which they occur. No distinction is made between realised and unrealised gains in the Statement of Financial Activities as the Trustees consider that the disclosure of total gains/losses show a truer and fairer view.

**i) Voluntary income**

Voluntary income is recognised on receipt.

**j) Events Income**

Events income is included when receivable.

**k) Subscriptions**

Membership subscriptions are accounted for on a receivable basis.

**l) Grants Payable**

Grants payable are charged against income upon approval of the grant, in so far as the grant is payable from current resources.

**m) Expenditure**

Charitable activities represent all costs incurred by the Society in meeting its charitable objectives.

Governance costs are incurred in connection with the management and administration of the charity. These include central management and administration costs, organisational costs and costs incurred to ensure compliance with constitutional and statutory requirements.

Each natural category of costs is considered individually and allocated on a percentage basis by function.

**n) Operating Leases**

Operating lease rentals are charged to the profit and loss account as incurred.

**o) Foreign Currencies**

Assets and liabilities denominated in foreign currencies are translated at the rate of exchange ruling at the Balance Sheet date. Transactions are translated at the rate of exchange ruling at the date of the transaction. All exchange differences are reflected in the Statement of Financial Activities.

**p) Legal Status of the Charity**

The charity is a company limited by guarantee and has no share capital.

**q) Cashflow Statement**

The Trustees have taken advantage of the exemptions given by Financial Reporting Standard 102 and have not prepared a Cashflow Statement.

**Society for Underwater Technology**  
**Notes to the Consolidated Financial Statements Cont/d**  
**For the year ended 30 June 2016**

**2. Results of the Society for Underwater Technology NUF**

The Society operates a Norwegian branch, the Society for Underwater Technology Norway NUF. The branch is a separate legal entity with no share capital operating under the control of the Society for Underwater Technology in the UK. A summary of the results of the Norwegian branch are shown below:

	2016 £	2015 £
Income	13,283	34,330
	<u>13,283</u>	<u>34,330</u>
Expenditure on charitable activities	6,112	14,238
Governance costs	4,602	33,214
	<u>10,714</u>	<u>47,452</u>
Net incoming resources before gains/(losses) on investment assets	2,569	(13,122)
Net gains/(losses) on investment assets	-	-
Net (deficit)/surplus	<u>£ 2,569</u>	<u>£ (13,122)</u>

**3. Income from donations and legacies**

	2016 £	2015 £
Donations	540	63
ESF Donations	4,426	5,909
	<u>£ 4,966</u>	<u>£ 5,972</u>

**4. Income from charitable activities**

	Note	Unrestricted Funds £	Restricted Funds £	Total 2016 £	Total 2015 £
Membership subscriptions	4.1	216,089	-	216,089	243,360
Conferences and seminars	5	142,648	-	142,648	467,572
Fees for services	6	25,500	-	25,500	2,500
Publications, journals, newsletters and educational products		10,659	-	10,659	19,826
		<u>£ 394,896</u>	<u>£ -</u>	<u>£ 394,896</u>	<u>£ 733,258</u>

**4.1 Membership subscriptions**

	2016 £	2015 £
Corporate members	162,938	183,654
Individual members	53,151	59,706
	<u>£ 216,089</u>	<u>£ 243,360</u>

**Society for Underwater Technology**  
**Notes to the Consolidated Financial Statements Cont/d**  
**For the year ended 30 June 2016**

**5. Conferences and seminars**

	2016			2015		
	Fees	Direct	Surplus/	Fees	Direct	Surplus/
	£	Costs	(Deficit)	£	Costs	(Deficit)
		£	£		£	£
<b>Courses</b>						
Subsea Awareness – Kuala Lumpur	-	-	-	50,666	26,611	24,055
Subsea Awareness – Singapore	-	-	-	11,702	9,231	2,471
Subsea Awareness China	-	-	-	-	-	-
Subsea Technical Flexible Risers – Kuala Lumpur	1,282	217	1,065	14,000	6,500	7,500
Offshore Site Investigation & Geotechnics - Courses	-	-	-	5,115	2,681	2,434
Subsea Awareness - Norway	4,750	4,847	(97)	5,848	2,083	3,765
Qualification of New Technology	-	-	-	34,330	3,851	30,479
Flow assurance	-	-	-	5,360	3,063	2,297
	2,300	520	1,780	-	-	-
<b>Conferences and workshops</b>						
SUT in Depth	-	-	-	18,247	-	18,247
Subsea Metrology	-	-	-	250	2,269	(2,019)
Offshore Site Investigation and Geotechnics	-	-	-	-	(2,425)	2,425
<b>Research</b>						
BRIDGES	20,680	63	20,617	18,074	928	17,146
<b>Branch activities</b>						
<b>London &amp; South England</b>						
Evening Meetings	6,339	6,929	(590)	5,204	8,116	(2,912)
Other events	7,389	81,218	(73,829)	7,405	10,441	(3,036)
<b>Aberdeen</b>						
Subsea Awareness	38,590	8,306	30,284	154,100	38,338	115,762
Offshore Marine Operations Awareness	-	-	-	6,026	1,630	4,396
Sponsorship of events	25,000	-	25,000	36,000	-	36,000
Introduction to Subsea Facilities	3,850	1,992	1,858	23,138	8,891	14,247
Introduction to Subsea Positioning	1,400	107	1,293	1,825	1,881	(56)
THSIS/SUT Seminar	3,106	3,157	(51)	7,616	3,600	4,016
Flexible Risers	-	-	-	21,413	2,987	18,426
Golf Day	3,480	3,696	(216)	3,245	4,213	(968)
Evening Meetings	4,501	5,497	(996)	11,476	13,234	(1,758)
Annual General Meeting	6,800	12,390	(5,590)	10,271	25,544	(15,273)
Breakfast Meeting	1,667	3,108	(1,441)	2,404	4,236	(1,832)
SUT+	2,714	2,317	397	537	1,133	(596)
<b>Newcastle</b>						
Evening Meetings	2,125	3,936	(1,811)	5,195	5,220	(25)
Other events	-	-	-	800	1,055	(255)
<b>Other events</b>						
Annual General Meeting	5,275	5,748	(473)	7,325	11,799	(4,474)
Christmas Lecture	1,400	7,601	(6,201)	-	3,902	(3,902)
	<u>£142,648</u>	<u>£151,649</u>	<u>£(9,001)</u>	<u>£467,572</u>	<u>£201,012</u>	<u>£266,560</u>

**Society for Underwater Technology**  
**Notes to the Consolidated Financial Statements Cont/d**  
**For the year ended 30 June 2016**

**6. Fees for services**

	2016 £	2015 £
All Energy Conference	2,500	2,500
Oceanology International	18,000	-
Offshore Europe	5,000	-
	<u>£ 25,500</u>	<u>£ 2,500</u>

**7. Investment income**

	Unrestricted Funds £	Restricted Funds £	Total 2016 £	Total 2015 £
<b>Charities Official Investment Fund</b>				
Dividends received	6,134	655	6,789	6,338
<b>Government Securities</b>				
Interest received	1,690	-	1,690	1,690
<b>Listed investments</b>				
Dividends received	-	-	-	-
<b>NSB Investment Account</b>				
Interest received	324	16	340	338
<b>Bank interest</b>				
Interest received	2,856	6	2,862	2,506
	<u>£ 11,004</u>	<u>£ 677</u>	<u>£ 11,681</u>	<u>£ 10,872</u>

**8. Analysis of expenditure on charitable activities**

	Note	Unrestricted Funds £	Restricted Funds £	Total 2016 £	Total 2015 £
<b>Direct charitable expenditure</b>					
Grants payable	9	10,196	43,000	53,196	56,799
Other direct charitable expenditure	10	712,551	-	712,551	778,461
		<u>£ 722,747</u>	<u>£ 43,000</u>	<u>£ 765,747</u>	<u>£ 835,260</u>

**9. Grants payable**

	Unrestricted Funds £	Restricted Funds £	Total 2016 £	Total 2015 £
Under graduates	-	26,000	26,000	30,000
Post graduates	-	17,000	17,000	15,353
Awards	4,981	-	4,981	617
Donations	-	-	-	4,141
Subsea grants (Norway)	5,215	-	5,215	6,688
	<u>£ 10,196</u>	<u>£ 43,000</u>	<u>£ 53,196</u>	<u>£ 56,799</u>



**Society for Underwater Technology**  
**Notes to the Consolidated Financial Statements Cont/d**  
**For the year ended 30 June 2016**

**10. Other direct charitable expenditure**

	Unrestricted Funds	Restricted Funds	Total 2016	Total 2015
	£	£	£	£
Accountancy	10,040	-	10,040	10,530
Auditor's remuneration	6,500	-	6,500	6,000
Bad debts	27,576	-	27,576	4,458
Bank charges	6,186	-	6,186	8,750
Branch admin	1,019	-	1,019	8,512
Conferences and seminars (Note 5)	151,649	-	151,649	201,012
Publications, journals and newsletters	72,709	-	72,709	47,769
Committee expenses	8,506	-	8,506	11,530
Computer maintenance	11,790	-	11,790	7,981
Depreciation	9,576	-	9,576	9,553
Exchange rate differences	1,238	-	1,238	756
Insurance	1,496	-	1,496	1,540
Lease of equipment	618	-	618	601
Marketing and advertising	85,258	-	85,258	78,198
Norwegian taxes payable	(13,283)	-	(13,283)	1,357
Postage	5,834	-	5,834	5,360
Professional fees	4,015	-	4,015	3,000
Professional fees, consultancy and administration (Norway)	(817)	-	(817)	8,327
Rent, rates, light and heat	46,983	-	46,983	46,257
Staff recruitment and training	5,765	-	5,765	833
Salaries	244,139	-	244,139	285,839
Stationery and office expenses	15,736	-	15,736	18,999
Subscriptions	1,392	-	1,392	2,368
Telephone	8,626	-	8,626	8,931
	<u>£ 712,551</u>	<u>£ -</u>	<u>£ 712,551</u>	<u>£ 778,461</u>

Included in accountancy above is £8,140 (2015:£7,480) payable to the auditors for non-audit services.

**11. Analysis of support and governance costs**

The charity initially identifies the costs of its support functions. It then identifies those costs which relate to the governance function. The table shown overleaf details the analysis of these support and governance functions.

**Society for Underwater Technology**  
**Notes to the Consolidated Financial Statements Cont/d**  
**For the year ended 30 June 2016**

**11. Analysis of support and governance costs (cont.)**

	General Support £	Governance Function £	Total £	Basis of apportionment £
Auditor's remuneration	-	6,500	6,500	Governance
Accountancy	-	10,040	10,040	Governance
Bank charges	6,186	-	6,186	Wholly attributable
Committee expenses	851	-	851	
Computer maintenance	3,537	-	3,537	
Depreciation	2,873	-	2,873	
Insurance	449	-	449	
Lease of equipment	185	-	185	
Postage	583	-	583	Usage allocation
Professional fees	4,015	-	4,015	Wholly attributable
Professional fees, consultancy and administration (Norway)	(817)	-	(817)	Wholly attributable
Staff recruitment and training	1,729	-	1,729	
Salaries	73,242	-	73,242	Allocated on time
Stationery and office expenses	3,147	-	3,147	Usage allocation
Subscriptions	696	-	696	Apportioned equally
Telephone	2,588	-	2,588	
Branch admin	1,019	-	1,019	Wholly attributable
Exchange rate differences	1,238	-	1,238	Wholly attributable
Bad debts	27,576	-	27,576	Wholly attributable
	<u>£ 144,497</u>	<u>£ 16,540</u>	<u>£ 161,037</u>	

Where not otherwise stated, supports costs as shown above have been calculated on a pro rata basis in line with the staff salaries allocation.

**12. Staff costs**

	2016 £	2015 £
Staff costs:		
Wages and salaries	209,089	229,538
Social security costs	18,393	24,231
Other staff costs	22,422	32,903
	<u>£ 249,904</u>	<u>£ 286,672</u>

Last year, 'Other staff costs' above included amounts paid to a part-time stand-in General Manager for the Norwegian branch, who was not an employee of the Group.

The average number of employees, analysed by function was:

	2016	2015
Direct charitable activities	4	5
Management and administration of the charity	3	3
	<u>7</u>	<u>8</u>

The Trustees did not receive any remuneration or reimbursed expenses during the year (2015: £nil). Total employee benefits of key management personnel amounted to £69,798.

Employees earning more than £60,000 during the year:

	2016	2015
£60,001 - £70,000	1	1
	<u>1</u>	<u>1</u>

**13. Taxation**

The Society is a registered charity and, therefore, no tax liability arises on the results for the year to the extent that income and gains are applied to the Society's charitable objects.

**Society for Underwater Technology**  
**Notes to the Consolidated Financial Statements Cont/d**  
**For the year ended 30 June 2016**

**14. Financial performance of the Society**

The Consolidated Statement of Financial Activities includes the results of the Society's wholly controlled Norwegian Branch, the Society for Underwater Technology Norway NUF. The summary financial performance of the Society alone is:

	2016 £	2015 £
Income	410,972	715,718
	<u>410,972</u>	<u>715,718</u>
Expenditure on charitable activities	767,745	787,754
Total expenditure	<u>767,745</u>	<u>787,754</u>
Net income before transfers	(356,773)	(72,036)
Net gains/(losses) on investment assets	2,430	10,352
	<u>(354,343)</u>	<u>(61,684)</u>
Total funds as at 1 July 2015	842,424	904,108
Total funds as at 30 June 2016	<u>£ 488,081</u>	<u>£ 842,424</u>
Represented by:		
Unrestricted income funds	284,653	601,502
Restricted income funds	203,428	240,922
	<u>£ 488,081</u>	<u>£ 842,424</u>

**15. Tangible fixed assets**

	Office furniture and equipment £	Computers £	Total £
<b>Cost</b>			
As at 1 July 2015	14,887	57,038	71,925
Additions	-	639	639
Disposals	-	(959)	(959)
	<u>14,887</u>	<u>56,718</u>	<u>71,605</u>
As at 30 June 2016	14,887	56,718	71,605
<b>Depreciation</b>			
As at 1 July 2015	13,292	39,493	52,785
Charge for the year	319	9,257	9,576
On disposals	-	(959)	(959)
	<u>13,611</u>	<u>47,791</u>	<u>61,402</u>
As at 30 June 2016	13,611	47,791	61,402
<b>Net book value at 30 June 2016</b>	<u>£ 1,276</u>	<u>£ 8,927</u>	<u>£ 10,203</u>
<b>Net book value at 30 June 2015</b>	<u>£ 1,595</u>	<u>£ 17,545</u>	<u>£ 19,140</u>

No fixed assets are owned by the Norwegian Branch.

**Society for Underwater Technology**  
**Notes to the Consolidated Financial Statements Cont/d**  
**For the year ended 30 June 2016**

**16. Fixed assets investments**

There are no fixed asset investments held by the Norwegian Branch, the notes below relate to the UK Society only.

**16.1 Summary**

	2016		2015	
	£ Cost	£ Valuation	£ Cost	£ Valuation
a) Government stock	19,859	21,244	19,859	22,706
b) Charities Official Investment Fund	50,141	182,348	50,141	178,175
c) NSB investment account	43,502	43,502	43,179	43,179
d) Listed investments	2,106	322	2,106	604
	<u>£ 115,608</u>	<u>£ 247,416</u>	<u>£ 115,285</u>	<u>£ 244,664</u>

**16.2 Concentration of investments**

	Unrestricted Fund %	Restricted Fund %	Total %
The concentration of investments may be analysed as follows:			
a) Government stock	9	-	9
b) Charities Official Investment Fund	66	7	74
c) NSB investment account	18	-	18
	<u>93</u>	<u>7</u>	<u>100</u>

**16.3 Movements on investments**

	2016 £	2015 £
Market value at 30 June 2015	244,664	233,989
Disposals	-	-
Gains/(losses) on revaluations	2,430	10,352
Interest on NSB	322	323
Market value at 30 June 2016	<u>£ 247,416</u>	<u>£ 244,664</u>

**17. Publications stock**

	Group		Society	
	2016	2015	2016	2015
Books for resale	<u>£ 27,878</u>	<u>£ 20,697</u>	<u>£ 27,878</u>	<u>£ 20,697</u>

**Society for Underwater Technology**  
**Notes to the Consolidated Financial Statements Cont/d**  
**For the year ended 30 June 2016**

**18. Debtors**

	Group		Society	
	2016	2015	2016	2015
	£	£	£	£
Trade debtors	51,329	54,420	43,962	47,115
Prepayments and accrued income	51,537	8,549	51,537	8,549
Other debtors	28,742	57,655	31,326	58,168
	<u>£ 131,608</u>	<u>£ 120,624</u>	<u>£ 126,825</u>	<u>£ 113,832</u>

**19. Creditors: Amounts falling due within one year**

	Group		Society	
	2016	2015	2016	2015
	£	£	£	£
Trade creditors	18,254	44,895	15,787	44,407
Deferred income	6,008	12,891	6,008	12,891
Social Security and Other Taxes	10,738	7,701	10,738	9,621
Accruals	39,496	25,539	39,496	25,539
Other creditors	1,902	6,711	1,902	3,285
	<u>£ 76,398</u>	<u>£ 97,737</u>	<u>£ 73,931</u>	<u>£ 95,743</u>

**Deferred income included in creditors due within one year**

	Group		Society	
	2016	2015	2016	2015
	£	£	£	£
Opening balance as at 1 July 2015	12,891	14,905	12,891	14,905
Deferred in the year	6,008	12,891	6,008	12,891
Released in the year	(12,891)	(14,905)	(12,891)	(14,905)
Closing balance as at 30 June 2016	<u>£ 6,008</u>	<u>£ 12,891</u>	<u>£ 6,008</u>	<u>£ 12,891</u>

**20. Limited liability of members**

In accordance with the Memorandum and Articles of Association, Fellows, Individual Members and Corporate Members (but not Associate Members and Student Members) are deemed to be Members of the Society within the context and as such have a limited liability of £5 per member in the event of the Society being wound up.

**21. Restricted funds**

	Balance	Incoming	Movement in Fund		Balance
	30 June 2015	Resources	Expenditure	Transfers	30 June 2016
			Gains/(losses)		
Society for Underwater Technology					
Educational Support Fund	<u>£ 240,922</u>	<u>5,506</u>	<u>(43,000)</u>	<u>-</u>	<u>203,428</u>

The above fund was set to provide educational grants to students. The amounts received as stated in the Statement of Financial Activities represent amounts donated by corporate and other members of the Society.

**Society for Underwater Technology**  
**Notes to the Consolidated Financial Statements Cont/d**  
**For the year ended 30 June 2016**

**22. Analysis of group net assets between funds**

	Unrestricted Funds £	Restricted Funds £	Total Funds £
<b>Fund balances at 30 June 2016 are represented by</b>			
Tangible fixed assets	10,203	-	10,203
Investments	229,795	17,621	247,416
Current assets	149,383	185,807	335,190
Current liabilities	(76,398)	-	(76,398)
	<u>312,983</u>	<u>203,428</u>	<u>516,411</u>
<b>Total net assets</b>			
	<u>312,983</u>	<u>203,428</u>	<u>516,411</u>
<b>Unrealised gains included above on investment assets</b>			
	<u>120,250</u>	<u>11,559</u>	<u>131,809</u>
<b>Reconciliation of movement in unrealised gains on investment assets</b>			
Unrealised gains at 30 June 2015	118,223	11,156	129,379
Total gains/(losses) in year	2,027	403	2,430
	<u>120,250</u>	<u>11,559</u>	<u>131,809</u>
<b>Unrealised gains at 30 June 2016</b>			
	<u>120,250</u>	<u>11,559</u>	<u>131,809</u>

**23. Funds held as agent**

In the prior year, the Society for Underwater Technology held funds for the International Marine Contractors Association (IMCA), a trade association that operates in the marine sector. As the objectives of the fund are very much in line with those of the Society for Underwater Technology, but ultimately control of the fund rests with IMCA, they were not included in these Financial Statements other than by way of this note. The total funds held as agent as at 30 June 2016 were £nil (2015: £61,020).

**24. Operating leases**

At 30 June 2016, the Society was committed to making the following minimum payments under non-cancellable operating leases expiring:

	Group		Society	
	2016	2015	2016	2015
Within one year	£ 34,455	£ 33,462	£ 34,455	£ 33,462
Between 2 and 5 years	38,018	44,518	38,018	44,518
	<u>£ 72,473</u>	<u>£ 77,980</u>	<u>£ 72,473</u>	<u>£ 77,980</u>

**25. Related party transactions**

There are no related party transactions in the current and prior year requiring disclosure in the financial statements.

**26. First year adoption**

This is the first financial year that the Society for Underwater Technology has presented its financial statements in accordance with the Financial Reporting Standard applicable in the UK and the Republic of Ireland (FRS 102) and the Charities SORP (FRS 102). For financial years up to and including the year ended 30 June 2015, the Charity prepared its financial statements in accordance with the old UK GAAP and Charities SORP 2005.

In carrying out the transition to FRS 102, the impact on the prior year restatement is £nil, therefore the presentation of reconciliation of funds at the date of transition 1 July 2014 and at 30 June 2015 is not considered necessary.