



THE IPLOCA NEWSLETTER

DECEMBER 2017



Mexico City Convention Retrospective

page 14 - with 6 photo pages



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Member News page 17

BENDING HISTORY



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POWER: The Maats bending machine program ranges from 16 to 60 inch. The robust and reliable Maats bending machines have the capacity to bend pipes up to 1 inch wall thickness x100 of the maximum loadable pipe-size. The Maats bending machines are the strongest available in the market.

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IPLOCA Mission

To provide value to members through a forum for sharing ideas, engaging the industry and its stakeholders, facilitating business opportunities and promoting the highest standards in the pipeline industry.

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Fuerte river crossing in El Encino

Topolobampo pipeline - Mexico

Courtesy of G.D.I.

IPLOCA Yearbook

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Letter from the President

I am delighted to have the opportunity to serve as IPLOCA President for 2017-2018 and I look forward to continuing to provide value to our membership through our activities.

You will notice quite a few new faces on the Board, and also some returning familiar faces who have already served several years with us. I would like to warmly welcome all the incoming directors whose profiles you will find on pages 7 to 9 of this newsletter.

Just over 520 participants registered to take part in our 51st Annual Convention. However, as you are aware only a few days before the beginning of the convention an earthquake hit Mexico and as a result, the number of attendees was reduced. That said, after consulting the local representatives and our own IPLOCA staff in Mexico City, the programme went ahead as planned and the business, cultural and social events were greatly appreciated by all. During the convention donations received from delegates were used to buy much needed medical supplies which were distributed, via a dedicated centre, to families directly affected by the earthquake.

The Board and the Secretariat are appreciative of the fact that, despite these particular circumstances, all the sponsors of IPLOCA's 2017 Convention honoured their commitment to IPLOCA, and the majority of registered delegates attended. A retrospective can be found on pages 14 to 16, including a feature on this year's guest speakers and the winners of this year's IPLOCA Awards.

In this newsletter, you will also find updates on the work of our committees, specifically the HSE & CSR Committee and the Innovation Committee. The Scholarship Committee is already receiving applications for the 2018 programme.

I expect a busy year ahead for the association, since along with the support of the new Board, I would like to focus on making IPLOCA "fit for the future" and ensuring that it remains the association of choice. We have already reviewed our committees (see page 7 of this newsletter) and the other main objectives will be to undertake a membership survey, improve our membership engagement and communications, ensure our members, partners and affiliates are aware of the value of membership, and publish a rolling 5-year association business plan.

The Board does not work in isolation; our new committees welcome participation from all our membership. So, at any time, please feel free to contact a director if you have suggestions or wish to provide feedback.

Best regards,

A handwritten signature in blue ink, which appears to read "Andrew Ball". The signature is fluid and cursive.

Andrew Ball

IPLOCA President 2017-2018

News from Geneva

New Face in the Secretariat

Not only has the Board renewed this year, but a new face has appeared in the Secretariat team. After working initially as an intern and then 3 years full-time with IPLOCA, **Emma Hachfeld** has left us to travel, gain expertise in other activities related to her career and learn another language. She will be sadly missed by not only her colleagues but also many of our members who met Emma during the last 5 conventions and those who worked with her on the Novel Construction Initiative. She will be particularly remembered for her contribution in creating and updating mobile applications for The Road to Success and the Convention.

We welcome **Grégoire de Montmollin**, a Swiss national, who is (like Emma) a graduate of the Ecole Hotelière de Lausanne. As Administration and Convention Coordinator, Greg (as he likes to be called) provides daily general support to the Secretariat and will also be working alongside our Convention Manager, Caroline Green. He will take on Emma's role, acting as the administrator of the Novel Construction Initiative and The Road to Success.



Season's Greetings

IPLOCA's Board of Directors and the staff of the Secretariat would like to thank everyone who has been involved in the work of the association during this past year. We are of course grateful for your expertise, the sharing of your time and in some cases for hosting our events and sponsoring activities. We are also particularly thankful for your friendships! In 2018 we look forward to new goals and achievements to help prepare our association for the future. **Our very best wishes to you all for a healthy, safe and prosperous new year!**

Board Meeting Update

Mexico City

Four Board of Directors meetings were held in Mexico City during the week of the annual convention from 24 to 29 September. The following highlights the main discussions and decisions made.

51st Annual Convention

Following the earthquake that occurred in Mexico 5 days before the start of the annual convention, the decision was made to go ahead with the programme having assessed the situation on-site and received confirmation that the venues for the tours, the golf tournament and social events had not been affected by the earthquake.

There was a strong feeling that by not cancelling IPLOCA would show its solidarity to the Mexican people and contribute to the livelihood of the local suppliers and communities. It was agreed that, under the circumstances, adjustments would be made to the convention programme to reduce the "festivities". Donations collected were used to buy medical supplies

that were distributed directly to families affected by the earthquake, via the Dolores Olmedo Centre.

Treasurer's Report

Juan Arzuaga explained that Jan Koop had resigned and that a new Treasurer had been appointed. He thanked Jan Koop for all the work he had done up until now.

The new Treasurer, Adam Wynne Hughes, President, Pipeline Induction Heat, presented the Treasurer's Report. He started with the forecast to complete 2017 and also presented the report to the AGM which was approved by the Board. Adam Wynne Hughes confirmed that the association showed an operating loss of CHF 166,000 at the end of 2016. However, in referring to a graph of the status of IPLOCA funds going back to 2011, he indicated that a fixed portion of the funds is allocated to a contingency fund for IPLOCA should the association ever need to be dissolved, as well as a portion being allocated as a Convention Contingency Fund if a convention ever needed to be cancelled due to unforeseen reasons. The balance of the funds are flexible and available for the association's use on a daily basis and for future projects.



Incoming President Andy Ball then presented Rubén Kuri with his presidential pin.

Board of Directors Dinner

It was agreed to adapt the name of the Directors & Wives Dinner that takes place after the first Board meeting on the Sunday before the convention. It has been renamed "Board of Directors Dinner", to remove any reference to gender specific spouses.

New Regular Member

One Regular Member was confirmed: **Arkad Engineering and Construction Co.**, Saudi Arabia.

New Associate Members

Two Associate Members were confirmed: **Brown Rudnick LLP**, U.K., **LaValley Industries**, U.S.A.

New Corresponding Members

Two Corresponding Members were confirmed: **Enagas S.A.**, Spain, **Jemena Limited**, Australia

Resignations

Resignations have been received from the following: **Subsea 7**, U.K. and **Willbros Group, Inc.**, U.S.A. and effective end of 2017, **Bohlen & Doyen GmbH**, Germany and **Geocean**, France.

Considered as resigned because of non-payment of 2017 membership fees: **ALSA Engineering & Construction Co. LLC**, U.A.E.; **Bhotika Trade & Services Pvt. Ltd.**, India; **Cryotek Eng. Srl**, Italy; **GOM Resources Sdn Bhd**, India; **Industrial X-Ray & Allied Radiographers (I) Pvt. Ltd.**, India; **Kauno Dujotiekio Statyba, UAB**, Lithuania; **Lastechnik Europa BV**, The Netherlands; **Oil and Gas Construction Company (OGASCO)**, U.A.E.; **Stroygazconsulting LLC**, Russia; **TKC Industrial Holding**, Russia; **Tatnefteprovodstroy OJSC**, Russia.

Regional Meetings

The following regional meetings were tentatively scheduled:

- Houston (in conjunction with OTC) – 30 April 2018
- Brisbane (in conjunction with APGA) – 9 May 2018
- Abu Dhabi (in conjunction with ADIPEC) – November 2018
- France – to be determined – possibly June 2018
- Latin America – to be further discussed

Fit for the Future

Andy Ball presented his ideas on how to improve the association for the future and to ensure it remains or becomes the "association of choice". The main objectives are:

- To undertake a membership survey
- Improve our membership engagement
- Review of our committees
- Publish a rolling 5 year association business plan
- Ensure members, partners and affiliates are aware of the value of membership and of the association
- Enhance our communications

Convening of the 2017-2018 Board of Directors

On Friday during the week of the Annual Convention the retiring president, Rubén Kuri thanked his board and the secretariat for their support over the past year.

The retiring directors and directors-at-large left the room and the 2017-2018 Board convened. Rubén Kuri tabled the proposed names for the 2017-2018 officers and the board voted unanimously to appoint Andy Ball as President, Iosif Panchak as 2nd Vice President and Adam Wynne Hughes as Treasurer.

Rubén Kuri then explained that the officer (Mesut Sahin) who had held the position of 2nd Vice President last year would normally have become 1st Vice President, but he had had to resign from this position as he had retired from his company. There ensued a discussion regarding the choice of 1st Vice President, and the Board subsequently approved by majority vote the proposal being made that John Tikkanen be appointed to the position of 1st Vice President.

Appointment of Directors and Directors-at-Large

There being one vacant seat in the East & Far East region, Andy Ball proposed the appointment of Ma Chunqing for one year, which was unanimously accepted by the other directors. The names of the proposed new directors-at-large were tabled by President Andy Ball. The board then voted unanimously to appoint Oliviero Corvi (Bonatti), Doug Evans (Gulf Interstate Engineering), Kelly Osborn (U.S. Pipeline), Sue Sljivic (RSK) and Steve Sumner (Lincoln Electric), as Directors-at-Large.

Nominations to the New Committees

After a presentation of each new committee, as proposed and approved by the 2016-2017 Board at their last meeting,

committee leadership was then discussed. The following committee members were appointed. Each committee was asked to work on their mission and objectives to be discussed at the next board meeting.

HSE & CSR Committee: Sue Sljivic (Chair), Mark Barrows, Georges Hage, Max Hofmann, Gonzalo Montenegro, Albert Zakhem

Innovation Committee: Fatih Can (Chair), Giacomo Bonfanti, Doug Evans, Bill Solomon

Scholarship Committee: Steve Sumner (Chair), Doug Evans, Rubén Kuri, Brian Laing, Kelly Osborn, Bill Partington, Bill Solomon

Membership Committee: John Tikkanen (Chair), Oliviero Corvi, Iosif Panchak, Bill Partington, Bill Solomon, Steve Sumner

Convention Location & Communications Committee: Adam Wynne Hughes (Chair), Oliviero Corvi, Jacquelin de la Porte, Khulud Halaby, Yasar Pakel

Offshore Engagement Committee: Andy Ball (Chair), Alberto Barbieri, Rubén Kuri, Ma Chunqing, Adam Wynne Hughes

Scholarship Programme

It was agreed that IPLOCA would support the scholarship programme for one more year to give the Scholarship Committee more time to evaluate effective funding ideas and make proposals to the Board. Members who are interested in sponsoring a scholarship or have ideas on how to fund the programme for the future are invited to contact any member of the Scholarship Committee or the IPLOCA Secretariat.

The World Federation of Pipeline Associations

Due to a number of cancellations from World Federation members, the meeting scheduled to take place during the convention in Mexico City was cancelled. The next meeting will be held during the DCA 57th Convention in California from 25 February to 2 March 2018.

Next Board Meeting

The next board meeting will be held from 5 to 8 December 2017 in Edinburgh, U.K.

New Faces on the IPLOCA Board

We warmly welcome the following new directors, as a result of the 2017-2018 elections and nominations of Directors-at-Large.



Alberto Barbieri, Director for Europe Mediterranean

Italian national, Alberto, started his career as a field engineer in Malaysia with Saipem in 1994, after graduating as a Mechanical Engineer from the Politecnico University of Milan, Italy, and serving as an officer in the parachutist brigade of the Italian army. He then worked with Saipem until 2010, in a variety of onshore and offshore roles including Project Engineer, Proposal Manager, Project Manager and Operations Coordination Manager in Malaysia, Argentina, Italy, Russia, Tunisia and Croatia. Alberto has been with SICIM S.p.A. since 2010 and is currently Commercial Manager. He speaks five languages fluently, plus a fair amount of Russian. He is married to Oksana and they enjoy travelling with their 6-year old son.



Giacomo Bonfanti, Director for Latin America

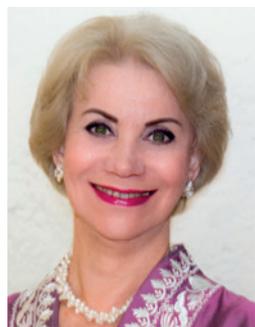
Giacomo Bonfanti is Deputy Chief Executive Officer at GDI Grupo Desarrollo Infraestructura in Mexico City. He has worked at GDI since 2010 after graduating from the Universidad Iberoamericana in Mexico City with a Bachelor of Science in Physics Engineering. He also has a Master of Engineering in Applied Physics from Cornell University in New York. He has travelled extensively and in his spare time likes to read, run, cook and play with his two dogs (but not all at the same time!). Giacomo is married to Neira.



Jacquelin de la Porte des Vaux, Director for Europe Mediterranean

Jacquelin, a French national, is Executive Vice President, Spiecapag & Entrepouse Contracting and is in charge of Business Development for EPC onshore activities of the Entrepouse Group. After seven years in the Thermal Power Plants business, he discovered that his life had to involve pipelines. He joined Spiecapag in

2007 after 10 years' experience in the offshore pipeline industry, serving mainly as Project Director (originally for Coflexip since acquired by Technip). Jacquelin was previously a Board member of IPLOCA from 2009 to 2011. He is married to Caroline and has one daughter, Clementine who, since 2016, is a doctor based in Paris.



Khulud Halaby, Director for Associate Members

Khulud has dual French and Syrian nationality and is Managing Director of the family business, Petro-Force s.a.r.l., a leading oil & gas subcontractor, now mainly focusing on the provision of skilled and technical manpower on a contractual basis. She is also General Director for DHL-Express in Syria, having taken this over from her father, and provides full logistics services for warehousing and distribution of humanitarian aid for UNHCR, WFP, UNICEF and other international organisations. Over the years, Khulud has actively participated in a number of international business delegations, summits, forums and round tables. She has an A.A. Diploma in Child Development and Psychology from the University of Western Ontario, Canada, a B.A. in Business Development from B.U.C. Beirut, Lebanon and an MBA from E.M. Lyon, France.



Maximilian Hofmann, Director for Europe Central

Max started at Max Streicher GmbH & co. KG aA in 2004 as Head of the Pipeline and Plant Division and became Managing Director in 2009 - a position which he continues to hold today. He started his career with Schandl Tief- und Rohrleitungsbau GmbH in 1995 and returned there in 1999 having spent one year with BMW AG. Max is a German national and undertook his studies in Applied Sciences at Munich University, Germany. He has already served two terms on the IPLOCA Board of Directors: from 2006 to 2008. In his spare time he likes to get into the mountains for mountain biking, climbing and ski-ing.

Mario Gonzalo Montenegro, Director for Latin America

Gonzalo is Founder and CEO of Serpetbol Peru S.A.C. The company started operations in 2002 and has become one of the leading construction companies in the country. After



graduating from the University of Wisconsin in 1987 (majoring in Industrial Engineering) he worked with Serpetbol Ltda. in Bolivia. Gonzalo then benefited from a broad experience within Serpetbol including solid on-site experience and the creation of new companies working in Bolivia, Argentina and

Peru. Gonzalo is married to Monica and has a daughter and twin boys. He enjoys the outdoors and particularly likes to spend time away from the city looking after his herd of cattle.



Kelly Osborn, Director-at-Large

Kelly has over 25 years' experience in the pipeline industry from construction to project management to field construction. He has been President and Senior Vice President of U.S. Pipeline, Inc. since 2001. He has held positions as

estimator, project manager, operations manager, business development, welder, and welder helper, while working with Michael Curran and Associates and M.J. Sheridan & Sons, Inc, Willbros Energy Services Company and Willbros Engineers, Inc. Kelly has a Bachelor of Business Administration from the University of Oklahoma, U.S.A. and enjoys spending time with his son, and two teenage daughters. Kelly and Staci are looking forward to many exciting adventures while being part of the IPLOCA Board. In his spare time, Kelly enjoys supporting his alma maters football team, the Oklahoma Sooners.



Yasar Pakel, Director for Europe Central

Yasar is a graduate engineer with a Master's degree in Mechanical Engineering and has more than 38 years' experience in the oil & gas and petrochemical industries, as well as the renewable energy sector. He is currently Chief

Business Officer at MMEC Mannesmann GmbH and held various management positions for onshore upstream and process facilities. Previously he worked for international oil and gas operators in different regions in the Middle East, North Africa, Far East as well as in China and Russia. He also served on the IPLOCA Board of Directors from 2003 to 2006. Based in Germany, Yasar is married to Sonja and has two children.



Sue Sljivic, Director-at-Large

Sue is a founding member of RSK Group, which she established with two colleagues nearly 30 years ago to work on large pipeline projects. The company currently employs over 1500 people working across the Middle East, East Africa, Europe, Caspian and Russia. RSK is also

increasingly working on renewable projects such as offshore wind farms, nuclear generation and electricity transmission

projects. Sue is a Chartered Landscape Architect by training. She is married to Nick and they have two grown-up children. She is a keen rower and rows competitively for Runcorn Rowing Club. In any spare time that they have, Sue and Nick enjoy walking and cycling.

We also welcome **Doug Evans**, Chairman of Gulf Interstate Engineering, back to the Board as Director-at-Large and thank him for agreeing to continue to share his experience and knowledge with the newly created Board.

Membership Centre

IPLOCA 2018 Membership Fees

Membership fee invoices were emailed at the end of November and the payment due date is the first business day of 2018 (i.e. 2 January).

Please note that paper copies of invoices will only be mailed upon request. Membership certificates will be sent out in January.

If you have any questions please contact IPLOCA's Accounting Manager sarah.junod@iploca.com

New Regular Member



Arkad Engineering and Construction was established in Saudi Arabia with a view to building a long term sustainable Tier 1 EPC company to service the global energy sector.

The company's business activities include the execution of engineering, procurement, construction and maintenance of petrochemical and power plants as well as oil, gas and

water pipelines. Its multinational, multi-skilled, highly experienced engineering and operations workforce of more than 9,000 employees compliments its innovative approach to pipelines as it continues to invest in new methods, technology and research to make sure it provides the very best possible service for clients.

Arkad Pipelines Division offers complete project solutions from feasibility studies through route selection, FEED development, detailed design, procurement, construction and commissioning. Coupled with its internal capabilities such as eight independent automatic welding spreads, internal and external field joint coating technology, its trenchless department and corrosion management department, Arkad E&C is confident in its ability to safely deliver big projects on time.

Arkad Engineering and Construction Co.

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New Associate Member



LaValley Industries was founded in 2006 by Jason LaValley with the mission of bringing innovative pipe handling solutions to the pipeline industry, created and designed by those who had worked in the frontlines of the industry. LaValley's flagship DECKHAND[®] product line was birthed from a sketch that LaValley created after witnessing a job-site accident. Designed around the concept of a single tool with many purposes, the DECKHAND[®] is powered by the excavator's hydraulics and utilises a variety of purpose driven arm attachments to safely and efficiently handle different types of pipe, drill rod, road mats, casing and other materials. Over the last decade, LaValley Industries has grown from its humble beginnings into a sophisticated equipment manufacturer with global distribution and a product line-up of material handling attachments spanning across multiple industries.

LaValley Industries

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New Corresponding Members



Enagás is an international midstream gas company with infrastructures in eight

countries: Spain, Mexico, Chile, Peru, Greece, Italy, Albania and Sweden. With a history of almost 50 years, Enagás has more than 12,000 km of pipelines and 8 LNG terminals. It is accredited as an independent TSO by the European Union. In Spain, Enagás has developed the key infrastructures for the Spanish Gas System, transforming it into an indicator for security and diversification of supply.

The company is the main carrier of natural gas in Spain and also the Technical System Manager. Enagás is a listed company on the Spanish stock market, Ibex 35, with 95% free float. Enagás is also a benchmark in sustainability: it is the number one Spanish company in the Global 100 Index presented at the Economic Forum in Davos in 2017.

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Jemena owns and operates a diverse portfolio of energy and water transportation assets across the east coast of Australia. With more than A\$10.5 billion worth of major utility infrastructure, the company supplies millions of households and businesses with essential services every day.

Their assets include: The Jemena Gas Network in New South Wales, which is Australia's largest gas distribution network, delivering natural gas to more than 1.3 million homes and businesses; The Jemena Electricity Network in Victoria, powering more than 320,000 homes and businesses in Melbourne's north-west and some

of Australia's most important gas transmission pipelines, including the Northern Gas Pipeline under construction in the Northern Territory.

Jemena has more than a century's experience and expertise in the utilities sector and a strong portfolio of high-quality distribution and transmission assets. As a provider of gas, electricity and water, the company has enduring relationships with its customers and the communities where it operates. They are at the heart of Jemena's commitment to deliver energy and water safely, reliably and affordably, and to maintain sustainable growth of its business in the long term. Jemena is backed by the strong resources of its shareholders, State Grid Corporation of China and Singapore Power.

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By-laws Changes Approved at AGM

Proposed changes to the By-laws were approved by the membership at the AGM that took place on 29 September in Mexico City.

In addition to clarifications regarding Corresponding Membership, the following amendments are included: the requirement that nominations for election to the Board of

directors be delivered at least 30 days preceding the AGM and that proxies must be received at least ten days prior to the AGM (9.5.2 and 9.6); a clause on signature rights has been added (10.5); clarification that all memberships confirmed by the Board are subject to a joining fee equal to the membership fee (12.1); and, a clause has been added stating that annual dues are payable on 1 January, unless a notification of resignation is received in writing 15 days prior to the previous year's end (12.2).

IPLOCA Scholarship Programme



As a reminder, the applications submission deadline for the Scholarship Programme is **28 February 2018**. Spread the word within your companies – we encourage you to make use of the electronic versions of the flyers in seven different

languages which are available on our website. You will also find information on the eligibility requirements on the same page: www.iploca.com/scholarship.

Applications should be made in English online at www.scholarsapply.org/iploca. Please note that all the supporting documentation needs to also be provided in English.

Presentation of Awards in Mexico City

Three awards were presented in Mexico City – further information on the entries is available on our website, along with the list of submissions received.

The 2017 IPLOCA Health and Safety Award

sponsored by Chevron

The award is in recognition of members' initiatives aimed at improving health and safety in the pipeline industry.

This year's award was given to **DODSAL Engineering and Construction Pte. Ltd.**, represented by Ramadugu Devanandam and Anil Shivashankar, in recognition



Rubén Kuri, Anil Shivashankar and Ramadugu Devanandam

of their Road Safety Initiative - Robot Road Safety Manager. The Adjudication Committee made their choice because the project includes an IVMS (In Vehicle Management System) with a robot for drivers' self-evaluation, positive recognition for good behaviour, and for being an innovative solution where leadership fails. Ramadugu Devanandam thanked the committee & IPLOCA for selecting Dodsar for "this prestigious award and for recognising our contribution to health & safety requirements. Health and Safety has always been our priority and during the past years Dodsar has consistently outperformed industry standards for HSE and achieved over 100 awards for its excellence in safety."

The runners-up were:

- **Bonatti S.p.A.**, represented by Oliviero Corvi, for "The Eagle-Trainer" programme that provides instant on-site training using drones and video recordings, offers positive recognition for safe behaviour, and provides videos for future training activities.
- **TEKFEN Construction & Installation Co. Inc.**, represented by Levent Kafkasli, for the "Working on Steep Slopes" initiative, which is a best practice not often used that focuses on the prevention of accidents on steep slopes, provides a good solution to a high potential event, and is a unique and innovative aspect for pipeline construction. In hearing about the award, Tekfen's Chairman, Osman Birgili, said that although he was personally happy about receiving this award, he was more proud of his teams on the ground, to whom the award really belonged.

The 2017 IPLOCA New Technologies Award

sponsored by BP

This award is given in recognition of a significant achievement in the development of new pipeline technologies.

The New Technologies Adjudication Committee decided to present the award jointly to **CRC-Evans Pipeline International** and **LaValley Industries LLC**, represented by Brian Laing and Jason LaValley, in recognition of their work on their onshore TONGHAND Exit Side Wrench. This entry was selected because the tool is innovative and improves health and safety.

One runner-up was named: **Sicim**, represented by Leonardo Gravina, for their Front Winch Ex-cavator,



Scot Fluharty (Committee Chair), Brian Laing, Jason LaValley

an innovative machine developed to improve operations, safety and productivity.



The 2017 IPLOCA Corporate Social Responsibility Award

sponsored by Total

The award is presented every second year in recognition of an initiative aimed at improving the living conditions of the people in communities local to and impacted by pipeline industry work.

The Adjudication Committee decided to present the award to Fluor®, represented by Larry Bolander, in recognition of their 2016 Global Community Project Fund, which demonstrates a strong corporate global commitment, shows employees' and stakeholders' engagement and is a long term and highly diverse initiative. Larry Bolander said that they are very proud to be honoured at the IPLOCA Convention this year. "We are a very community orientated company and we want to be a part of our community, to support it as best we can."

The Committee also named two runners-up:

- **Saipem S.p.A.**, represented by Giancarlo Proietti, for the "Alegria do Ambriz" Project, a pragmatic initiative with local content that demonstrates continuous commitment.
- **TEKFEN Construction & Installation Co. Inc.**, represented by Fatih Can, for their Contribution to Seasonal Workers' Families and Children, a pipeline site specific initiative that demonstrates how a small investment can have a massive impact on improving the quality of life of seasonal workers.



Santiago Villarreal Bravo (Total), Larry Bolander

Submissions 2018

Thank you to all those who participated in the 2017 awards and we encourage all members to prepare and submit entries for 2018, which, in addition to the IPLOCA Health & Safety Award sponsored by Chevron, will include the IPLOCA Environmental Award sponsored by Shell and the IPLOCA Excellence in Project Execution Award. Submissions are required by May 2018 and further information will be available on www.iploca.com.

Health, Safety, the Environment & CSR

The newly named HSE & CSR Committee met at the Crowne Plaza in Geneva, to coincide with the Health & Safety Workshop and the Fall Plenary Session of the Novel Construction Initiative.

The new Committee Chair, Sue Sijivic, Director at RSK in the U.K.*, thanked Bruno Maerten of Entrepose for his five years of dedication as Chairman of the Committee. She explained

the change of committee name, which was decided by the Board of Directors at their meeting in Mexico City to better describe the range of work that its members cover. Both Adam Wynne Hughes (PIH) and Amir Tajik (Max Streicher GmbH & Co KG aA) were congratulated for having served 10 years on the committee – thank you for continuing to share your knowledge and for your commitment.

* Sue's biography can be found on page 9 of this newsletter.

Health & Safety Workshop

This year's Health & Safety Workshop on the topic of Humans & Machines: the Hidden Hazards was held in Geneva on 24 October, just before the Novel Construction Initiative Fall Session. For the first time, these events were also available on a webcast. Close to 60 participants attended the workshop and 45 people took advantage of

the webcast option. Positive feedback was received by many of the webcast users who appreciated the quality of the service, allowing them to participate when they were not available to travel to the venue.

Alan D. Quilley, author, consultant and a compelling speaker, acted as facilitator and also made a presentation on "Humans and Machines: the Hidden and Not so

Hidden Hazards". The agenda also included presentations from Mustafa Abusalah of CCC on their Preview Radar System; Audrey Bodin from TIGF who provided the point of view of an operator; and John Haynes, Project Director of TAP who drew on hands-on experience from the initial TAP construction period. Discussions included the human factors and technology aspects involved as well as those that can prevent accidents from happening, with the

objective of better integrating humans and machines into a safer work environment. During the afternoon, attendees had the opportunity to debate the subject in smaller groups with the speakers and colleagues from the industry.

Presentations made as well as videos are available at www.iploca.com/hseworkshop.

Health & Safety Shared Experiences Platform

The Committee is grateful to all members who continue to contribute to the Health & Safety Shared Experiences Platform. Nearly 180 documents have been uploaded since its launch in June 2016. Thanks go to the following companies for their latest contributions: Tekfen, PIH, Price Gregory, TAP and RSK. All documents are grouped according to specific categories and under "Lessons Learned" or "Safety Alerts". Take a look at www.iploca.com/safetyplatform. Sharing learnings is essential to

collective knowledge – Alan Quilley gives us his view on replacing common sense with gained common knowledge in the next article.

Notification Service

We encourage you to register to receive periodic notifications, highlighting the latest documents that have been uploaded. Please note that, as of the end of December, this complimentary service will only be available to those who subscribe to it. Simply click on the link available at www.iploca.com/safetyplatform, or send an email directly to sarah.junod@iploca.com.

Time to Replace "Common Sense" with "Gained Common Knowledge"

Alan D. Quilley CRSP, President of Safety Results Ltd. and author of "The Emperor Has No Hard Hat: Achieving Real Safety Results"

We're much better off using COLLECTIVE knowledge... what we ALL know together!

Common sense isn't at all common. The concept of common sense is illogical. As humans we know what we know and no more. We don't have magical or super powers that somehow gives us a "sense." We certainly don't have a common experience and knowledge. We all have different experiences and have gained our own knowledge in different ways. We are as unique as snowflakes.

Common sense is a term usually applied in a negative statement about others, as in "They don't have any common sense." It is also used to claim superiority "Well, I HAVE COMMON SENSE", suggesting that obviously others don't. Either way it is illogical. There is NO sense that is common.

Anyone using the term on others or themselves simply has forgotten WHERE and from WHOM they learned what they know. We know that water is wet and stoves that are turned on or have been on are hot. This is NOT because of some

magic it is because of experiential learning. We'd felt it ourselves OR we've gained knowledge through others. So let's get on with sharing our knowledge with those who may not have it. We're much better off using what I call "collective knowledge" where we can logically and systematically SHARE our knowledge with others. This collective knowledge is gained by humans not assuming that everyone knows what we know but actually creates collective knowledge by sharing what we know and asking questions of others.

So down with common sense and let's work on developing "common knowledge." It's less insulting to recognise someone doesn't have a "common knowledge" and then the next step is to be generous with what YOU know and share it with them. It's also a great idea to find out what YOU don't know from the other person.

A great example is the IPLOCA Health & Safety Shared Platform, developed to allow members and non-members to share learnings with each other: www.iploca.com/safetyplatform.

The power of this information is in companies sharing these articles with their staff and hopefully adding to the collective knowledge data base by contributing their knowledge to grow the "common knowledge."

Mexico City Convention Retrospective

The 51st Annual Convention was the third IPLOCA convention to take place in Mexico: the previous two were held in Acapulco in 1975 and 1994.

Just over 520 participants registered to take part in this year's event, of which over 20% were first-time attendees – a slight increase once again on the previous year.

It is unfortunate that the number of attendees was reduced following the earthquake that hit the country a few days before the convention. The week's programme went ahead as planned, however, and included two days of Open General Meetings (OGMs), as well as numerous cultural and social functions. Tours were organised to Teotihuacan, the City of the Gods with its majestic Pyramid of the Sun and mysterious Avenue of the Dead; to Chapultepec Castle, in its 1,600 acre park, now housing the country's National History Museum, and to the floating gardens of Xochimilco. Details on the presentations made during the OGMs can be found on page 16.

We look forward to seeing everyone next year in London for our 52nd Annual Convention from 10 to 14 September, 2018.

Post-convention Questionnaire

We are grateful to those participants who took the time to complete and submit the post-convention questionnaire.

Your feedback is important to help us develop future conventions, and to give participants the opportunity

to express their opinion on any part of the programme. As indicated below, the convention programme was well rated overall.

Event Ratings



This year the speakers were very highly rated and over 90% of respondents confirmed that we should continue to invite an opening speaker to present on a local topic, with nearly half expressing a wish that the presentation should cover a cultural topic, and a quarter of respondents preferring an economic topic. Nearly 90% of respondents said they would like to continue to see presentations on IPLOCA's committees included in the OGMs.

The convention app was used by many more participants this year: 79% of participants logged in, compared to only 32% at each of the last two conventions. We received a number of ideas to help us improve on its use for future conventions.





Maats Pipeline Equipment Golf Tournament

Maats Pipeline Equipment and Liebherr-Werk Telfs GmbH would like to thank everyone who played in the golf tournament, which was held at Amanali Country Club & Nautica on Tuesday 26 September.

Once again the tournament was a great success. The course was fantastic and the weather was perfect. We look forward to seeing you at the 2018 IPLOCA Convention in London and hope you will join us for another great day on the golf course. We have received some suggestions from players to move the golf tournament to Wednesday to leave more time for Tuesday's programme. This will be confirmed in next year's convention brochure.



Congratulations to all trophy winners, namely:

First Place: Team 11: John Leask, Gerry Grothe, Liz Evans, Darryl Sandquist

Second Place: Team 8: Rodrigo Alvarez Morphy, Bill Solomon, Rubén Kuri

Third Place: Team 12: Phil Mallet, Arwen Mallet, Mercedes Acevedo, Tomas Garcia Pons

Nearest the Pin Ladies: Liz Evans

Nearest the Pin Men: Tomas Garcia Pons

Longest Drive Ladies: Karla Grissi

Longest Drive Men: Rodrigo Alvarez Morphy

New Honorary Members Honoured!

IPLOCA's newest Honorary Members, **Butch Graham** and **Gus Meijer** were given a standing ovation during the Final Banquet in Mexico City. Details on both these key figures and their work within the association, can be found on page 8 of the September 2017 IPLOCA newsletter, also available online at www.iploca.com/iplocanewsletter.

Photo Gallery

The photos on the following pages, along with many others, will be available on a convention USB card which will be mailed out to all attendees in December.



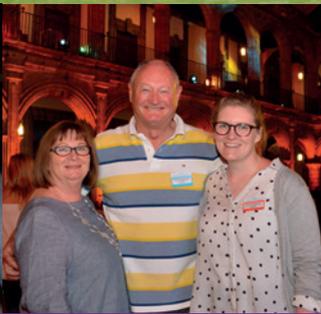












Guest Speakers at the Mexico City Convention

Many thanks to our guest speakers for their contributions during the OGMs on Thursday and Friday. Copies of their presentations are available at www.iploca.com/convention



Roberto Escartin
Historian
Mexico City Reshapes its Future - An Historic View with a Focus on Water Management



José Ignacio Aguilar Alvarez Greaves
CEO, Petróleos Mexicanos (Pemex) Logistics
Perspectives for Pemex in the New Mexican Investment Markets



Juvenal Macias Lupercio
Director and Principal Consultant for Oil & Gas market, DuPont Sustainable Solutions
Safety Excellence Leads to Business Performance



David Pfeiffer
Vice President, Mexico Projects, TransCanada Pipelines
TransCanada Pipelines Projects with a Focus on the Unique Execution Challenges in Mexico



Edward Heerema
President, Allseas Group S.A.
Removing Large Offshore Platforms in a Single Lift: "Pioneering Spirit"



Carlos Morales-Gil
CEO, PetroBal
Building and Operating Offshore Infrastructure in Mexico: a New Paradigm



Jonathan Green
Managing Director, Bonmont Energy Sàrl
Global Upstream Trends and the Impact of Sustainable Energy



Torstein Indrebo
Vice Chair Bureau, Group of Experts on Gas, United Nations ECE, Ministry of Petroleum and Energy, Norway
United Nations and the Gas Industry: Time for a Strategic Partnership



Ilija Radeljic
Technical Manager – LLLD Export, Pipelife Norge AS
The Benefits of Using PE Pipes in Long Lengths; Project Experiences

Member News



Costain's High Flying Drone Team

Unmanned Airborne Vehicles (UAVs) provide unique inspection, maintenance and optimisation solutions for large and complex assets and are increasingly being used for rapid data capture and modelling, reducing the time required for data capture by around 80%. Capabilities including image capture, laser scanning and unrestricted access to assets in any location, make UAVs ('drones') ideal for complex asset management challenges. Costain has eleven certified drone operators and is utilising the technology across a number of client portfolios.

New Global Pipeline Industry Manager (GCI) at Caterpillar

Doug Bailey, currently in the Surface & Mining Technology Group, has been promoted to GCI Global Pipeline Industry Manager based in Houston, Texas, effective 1 January 2018. He will be replacing Paul Rebello who is moving to Geneva. Doug's 19 years with Caterpillar have all been in customer/dealer facing roles. His deep knowledge of the global pipeline business combined with his field experience in sales and project management make him well suited for his new position.

PLM's Fabick Cat Celebrates 100 Years of Service

For 100 years, Fabick Cat has supplied equipment and services that help make progress possible and improve the quality of life in our communities. Doug Fabick, Fabick Cat CEO, Director of PLM, said a centennial celebration brings to mind many longstanding relationships for Fabick Cat, such as Fabick's deeply rooted history with the pipeline industry. Since the early 1930's John Fabick Tractor Company has been committed to the oil and gas industry, serving regional customers in Southern Illinois

to later efforts supporting the Trans Alaska pipeline to today's global PLM projects. PLM was formed from four of Caterpillar's largest and most experienced mainline pipeline construction equipment dealers (Fabick Cat included) to form a unique Cat® dealership – one whose territory was defined as mainline pipeline projects worldwide.

DENSOLEN® Field-Joint Coating Used on Natural Gas Lines in Upper Bavaria

DENSO Group Germany, leading manufacturer of corrosion prevention systems for welded seam coatings, rehabilitation and complete pipe coatings, is supplying corrosion prevention materials for approximately 3,000 steel pipe welded seams for the construction of the "Monaco" transport line in the east of Munich. The DENSOLEN® 2-tape system – proven over decades of use – will be installed on a 40-km stretch of pipeline with nominal diameters of up to DN 1200, using highly developed application equipment. The DENSOLEN®-N60/-S20 system is designed for use at consistently high operating temperatures, making it the ideal solution for this long-distance natural gas line, which can withstand pressures of up to 100 bar. Completion of the work is scheduled for 2018; the new pipeline will be commissioned later that year.



Top Management Changes at Gulf Interstate Engineering Company

After serving as President and Chief Executive Officer of Gulf Interstate Engineering Company for more than 20 years and working in various other capacities for over 39 years, as of 1 November, 2017, **Doug Evans** will begin his new role as Chairman of Gulf Interstate Engineering Company. He will continue working on GIE's global initiative as well as assisting with recognising and developing new innovation to meet the growing needs

of the customers GIE serves. The GIE Board of Directors nominated **Rick Barnard**, previously Senior Vice-President of Operations, as Doug's successor. Rick has served GIE for more than 27 years in various roles, delivering results and building successful teams. Doug and Rick will work closely with the Board and GIE's management team to further develop strategies and action plans, continuing the expansion of GIE's product offerings and the enhancement of GIE's overall market position with a focus on identifying and maximising opportunities and ensuring a strategic outlook for growth.

JES Pipelines Relocates Head Office and Awarded Thai Project

2017 has been a busy year for JES Pipelines with the relocation of its head office from Curacao to Singapore and the opening of an office in British Columbia, Canada establishing a presence for the first time in North America. JES Pipelines was also awarded phase 1 of the Fifth Transmission Natural Gas Pipeline (5TP1) Project in Thailand by SINOPEC. This phase consists of 150 km of 42" and 53 km of 36" pipes. The JES Pipelines Automated Ultrasonic Inspection System has been elected for service delivery and all other NDT methods will be provided by Qualitech, JES Pipelines' partner in Thailand. The total length of the pipeline will stretch for 426 km (267 miles) transporting natural gas from the LNG terminal, easing the delivery of gas in the coastal province of Rayong, to the inland province of Nonthaburi, just northwest of Bangkok, running through eight provinces in Thailand with the purpose of reducing the risks to electrical power security. The project is expected to cost 99 billion baht (USD 2.8 billion) and will be completed by 2020. JES Pipelines was the AUT supplier for the Fourth Transmission Pipeline Project for PTT, in partnership with Qualitech.

Kalpataru Power Transmission Limited (KPTL) Awarded Cumulative USD 203M Contracts

Since April 2017 KPTL has cumulatively been awarded around USD 203M worth of oil & gas pipeline and plant contracts. These include 120km of 12" pipeline installation and associated works in the southern Indian state of Kerala, for Kochi-Salem LPG Pipeline Project of M/s Kochi Salem Pipeline Pvt. Limited. The contract value is USD 26M and involves the supply of all materials, installation, testing & commissioning. Work is expected to finish by the end of 2018.

GAIL India Ltd. awarded a USD 14M contract to KPTL for another section (IIA) of Kochi-Kootanad-Bangalore-Mangalore Pipeline Project in Kerala. The scope covers



laying, testing and commissioning of approximately 64 km of 24" pipeline & associated facilities for the transportation of re-gasified LNG. The work is expected to be terminated by mid-2018. KPTL also won various contracts from IOCL progressively from 2011 to 2017 for the Paradip-Raipur-Ranchi Pipeline Projects in Eastern India. Cumulatively the pipeline length was 670 km of 10" to 18" diameter pipes, out of which 520 km has been completed & commissioned. The projects involved construction through 430 crossings, 56 major & 66 minor road crossings, 60 thrust boring and 110 HDD crossings. The terrain was hilly & undulating with scores of water bodies, most of which were perennial in nature with tidal effects.



Laurini Officine Meccaniche Ready to Test Laurini Laying System

The LLS - Laurini Laying System, a new generation of pipe-laying equipment, is now ready to be tested in the Italian construction site of Snam Rete Gas, specifically in Vidigulfo village. Max Streicher Italia, the contractor of the project, is currently working on lot 1 (Cervignano d'Adda - Rognano), of the new 56" methane pipeline from Cervignano to Mortara. The work is expected to be completed at the beginning of 2019.

CEPA Foundation Honours Michels Canada's Safety Successes

Michels Canada received the inaugural CEPA (Canadian Energy Pipeline Foundation) Safety Award for its advancements in safety on transmission pipeline construction projects. The award is presented to a CEPA Foundation member company that demonstrates commitment, achievement and leadership in safety. Michels' progressive safety programme focuses on its efforts to continuously change the way it approaches its work every day with an ultimate goal of reducing loss to its people and its assets. In addition to its companywide initiatives, Michels actively participates in improving the safety of the entire pipeline industry by taking part in roundtable discussions, leading safety workshops and serving on various committees.



PLM Announces Newest Carrier Solutions: the PANTHER T14R and PANTHER T16

In October, PipeLine Machinery International (PLM) announced the newest custom equipment solution to the pipeline industry - PANTHER T14R and PANTHER T16 by PRINOTH. The PANTHER T14R Rotating carrier will allow the continuous rotation of the upper portion of the vehicle independent from the undercarriage. The patent-pending direction reset allows the operator to reset the vehicle's upper and lower portions' alignment (front to back) by simply pushing a button. The PANTHER T14R has a 13 200 kg payload capacity and a loaded ground pressure of 7.46 psi. Together with a superior speed of 8.1 mph (13 km/h) and its narrower width of less than 102", the PANTHER T14R provides a solution to working in tight, challenging areas where other vehicles do not have access. The PANTHER T16 carrier has the highest payload in its class at 15 195 kg and a ground pressure of 6.87 psi, fully loaded. Available in the tilting flat bed or dumper configurations, the PANTHER T16 was designed for the rubber track option to provide a sturdy undercarriage

composed of five large wheels with both a tandem and a tridem suspension. This creates a uniform distribution of the load over the rubber track while offering superior suspension. With a maximum speed of 8 mph (13 km/h), the PANTHER T16 is sure to increase productivity, regardless of the project.

RKT's World Record PUPP Lining 4608 m HDD Drilling

In 2013 one of the two drinking water pipelines from the mainland to Texel island, in the Netherlands, broke. In spring this year, after a thorough preliminary investigation, the construction of a new pipeline from Den Helder to Texel began. The pipeline is installed by means of horizontal directional drilling (HDD). RKT produced the PUPP Lining for this project: 260 connections in total. PUPP Lining is a heavy duty protection for HDD and meets ISO 21809-03 standards. The total length of this HDD was 4608 m and the depth of the drilling was 85 m. The pipelines are now connected to the main transport pipe and will be in production this summer.

Saipem Awarded Contract in Northern Chile

Saipem has recently been awarded a new contract in the onshore E&C segment for engineering, procurement, construction and commissioning in the context of the development of a desalination and water transportation plant for the Spence Growth Options (SGO) project in northern Chile. The project will supply fresh water for a 20-year period to Spence copper mine owned by Minera Spence, a wholly owned subsidiary of BHP, a major mineral resource company based in Australia. The contract was assigned by Caitan S.p.A., a special purpose entity created by Mitsui & Co., Ltd and Técnicas de Desalinización de Aguas S.A. for desalination and conveyance services to be provided to Minera Spence. Activities will be carried out by the Onshore E&C Division in a consortium with Cobra Montajes Servicios y Agua, a Spanish company specialised in water treatment. Saipem's scope of work will include the construction of a 155 km system of 36" diameter pipelines for the transportation of water from the desalination plant to the Spence mine situated at an altitude of 1,710 m. The scope of work includes the construction along the route of 3 pumping stations and associated systems of control and maintenance.

SICIM Awarded Contract for Zubair Multiphase Pipeline

Within the context of the Zubair rehabilitation and enhancement programme, Eni Iraq Bv has awarded

to SICIM the contract for the multiphase pipeline construction, including approximately 30 km of 20\26" trunk line and associated facilities, such as works within existing degassing stations, tie-in's to existing manifolds and well heads. Zubair is one of Iraq's largest fields and is thought to hold around 4 billion barrels of proven reserves, one of the largest discoveries in the world.

Since 2012, SICIM has successfully installed over 500 km of pipelines and flowlines in the brownfield of Zubair. Works executed thus far include installation of oil and water pipelines and flowlines, ranging from 8" to 52". With over 6 million total man hours worked in the country and 3 million km driven, LTFR in 2017 are as low as 0,25%, exceeding both the KPI target and industry benchmark. All work is executed on an EPC basis. Engineering is conducted on fast track basis, to cope with the multiple challenges of design in a brownfield environment. A global project management approach, with continued support from corporate centres in Italy and Dubai, allows a smooth implementation of an integrated supply chain and an effective grip of the complexities of the country, such as security, regulatory environment, importation of goods and materials.



SPAC Focuses on HSE on TIGF's Raccordement Gascogne-Midi Project

RGM is a EUR 152-million project directed by TIGF and undertaken by SPAC to improve the gas supply between northern and southern France and, ultimately, to standardise gas consumption prices for all end-users. It consists in developing the capacities of the existing line with a new 61.8 km pipeline and an additional compressor. Started last summer, the work is mobilising up to 250 SPAC professionals in the Gascogne area. Their expertise ranges from levelling works to carting, bending and welding of the 900 mm diameter pipelines, as well as pipe laying and industrial work on the compressor station. HSE

measures are a key focus on the whole site, with regular workshops and activities to protect the teams' safety and the environment. Ecologists are present on site at all times to deal with any issues that may arise. Pipe laying has started in October 2017 and all works are scheduled to finish in October 2018.

Spiecapag Awarded Pipeline Construction Contract for Canadian TransMountain Expansion Project (TMEP)

TMEP consists of looping an existing oil pipeline between Edmonton in Alberta and the Pacific coast near Vancouver in British Columbia, over a total length of 1,149 km. This project aims to expand the capacity of North America's only oil pipeline with access to the West Coast and develop oil exports via marine transportation. The Macro-Spiecapag TransMountain Joint-Venture (50/50) is in charge of the construction of 85 km of 36" oil pipeline Spread 5B along the Coquihalla-Hope corridor in British Columbia for TMP (a wholly-owned subsidiary of Kinder Morgan Canada Limited). The overall construction period will be about 2 years; pipeline construction is scheduled to commence in May 2018 and should be completed in November 2019. Macro-Spiecapag TransMountain Joint-Venture has already been engaged by TMP since March 2017 for a pre-construction planning phase. The contract negotiations were being carried out in parallel and the construction contract was finally executed on 30 September 2017.

TransCanada Mexico - Sur de Texas Pipeline in Full Throttle

With over 750 km, a capacity of 2,600 MMCFD and a maximum operating pressure of 3,000 psig, the Sur de Texas –Tuxpan pipeline is a very important offshore pipeline being built this year. The Sur de Texas pipeline is a cornerstone in Mexico's strategy for developing the natural gas infrastructure in order to satisfy the increasing demand in the country for industry and power generation. Laying pipe this heavy on the seabed is not an easy task and for that TransCanada chose AllSeas one of the major subsea pipelay and construction companies in the world; over 200 km have already been laid so far in the last few months. Construction remains on-schedule with offshore production rates exceeding 3km per day, while safety, quality and environmental performance continue to be excellent, according to David Pfeiffer, Vice President Mexico Projects. This pipeline was awarded last year to the partnership between TransCanada and IEnova through an international public bidding from Mexico's CFE.

TESMEC - New "EVO" Series Trenchers

TESMEC has been working to help contractors increase productivity and reduce overall costs on pipeline projects. The recently developed "EVO" generation of 1475 and 1675 chainsaw trenchers can dig hard and abrasive rock with improvements to digging performance and cost efficiency that were unrealised until now. In response to the high cost of teeth consumption on many trenchers, TESMEC has developed the new "EVO" generation trenching equipment that combine up to 85% higher chain-pull and up to 62% lower chain-speed, with a new range of 5 selectable chain speeds. These new features are possible thanks to new flywheel gearboxes, new hydraulic components, and the latest release of the Trenchtronic 4.0 for full digital control of the automatic digging function. Compared to the previous models, the "EVO" series trenchers can guarantee up to 30% higher productivity in hard rock and deep trenching and up to 45% digging cost reduction.



Tubacero Awarded Offshore South of Texas Project

This pipeline will transport natural gas through the Gulf of Mexico, from the South of Texas, USA to Tuxpan, Veracruz. It will be interconnected to the Nueces - Brownsville and Tuxpan - Tula pipelines. With this pipeline CFE will transport natural gas to supply operating, new and converted (from burning fuel oil to natural gas) power generation plants located in the eastern, central and western regions of the country. With an OD of 42", heavy wall higher than 1" and the total approximate length of 800 km, the Offshore South of Texas Project is one of the more relevant and iconic projects of Mexico's new energy infrastructure. Tubacero was the preferred carbon steel line pipe manufacturer for this strategic development, due to its technically high quality and production capability of 1,000,000 metric tons per year.

Uniper Technologies Concept Study for Compressor Station

Uniper Technologies has been commissioned by Energinet to deliver a concept for a possible compressor station in Zealand in Denmark following a public tender process. The compressor station is part of the proposed Baltic Pipe Project. Uniper Technologies will provide a sound concept for the compressor station applying its experience in the design of such installations in the required short time frame. The design will cover the different operational conditions that are required and a high degree of flexibility and energy efficiency. The anticipated operational and decommissioning costs will also be considered as well as the investment costs.

voestalpine Böhler Welding Shaping the Future with Metallurgy

Under the Böhler Welding brand name, voestalpine Böhler Welding recently presented an innovative range of specialised wire electrodes for 3D printing, developed from a basis of metallurgical expertise and application know-how in welding and cladding. Wire Arc Additive Manufacturing (WAAM), as this revolutionary technology is officially named, is rapidly gaining ground as a flexible and cost-efficient method for the on-demand creation of components from special alloys. It uses robotic gas metal arc welding to create any desired product shape by depositing the weld metal layer upon layer. The WAAM process can be automated completely from part design to fabrication in a CAD/CAM environment, reducing the production time and the amount of human intervention needed for each new part. The innovative Böhler Welding 3Dprint range consists of the highest quality solid and cored wires with excellent surface finishing and the welding characteristics required for a stable 3D printing process. The available chemical compositions cover low- and medium alloyed steel, various types of stainless steel including duplex grades, nickel-base alloys, titanium and aluminium.



Innovation Committee

Novel Construction Fall Sessions

Just over 70 delegates from all over the world participated in a Novel Construction meeting held at the Crowne Plaza hotel in Geneva on 25 and 26 October, which was also available for the first time via webcast.

At the plenary session on the morning of 25 October, the new Committee Chair, Fatih Can (Tekfen Construction and Installation Co., Inc.) was warmly welcomed and past Chair Scot Fluharty was thanked for his work during his tenure. Presentations were then made by IPLOCA



members and invited speakers on their novel products and initiatives with the aim of improving pipeline design and construction.

These included the following topics and speakers:

- **Engineering Assessment for Temporary Wooden Line-pipe Support AND Bridging Buried Pipelines: Some Options and Recent Tests** - Angelina Parlato, Saipem*
- **Laser Cleaning for Industrial Applications** - Daniel Philippron, P-Laser *
- **Laser Technology - an Alternative for Field Joint Abrasive Blast Cleaning** - George Bakker, Industrial Laser Applications *
- **LaValley Industries TONGHAND Exit Side Wrench; Innovation and Safety in HDD Exit Side Operations** - Jason LaValley and Jorge Prince, LaValley Industries
- **Electronic Detonators for Trench Blasting** - Ed Gallagher, Dyno Nobel Inc.
- **Cloud Solution to Manage Drone Data in Construction Industries** - Nicolas Thizy, Caterpillar Sarl
- **Dispute Avoidance in Infrastructure Projects** - Jean-Christophe Barth-Coullaré, HASE Solutions

Articles on the initiatives marked with an * follow this report. Copies of the presentations and videos are available on www.iploca.com/novelplenarysession.

"The Road to Success" updates

The ten working groups continue to update the content of, and contribute additional content to, "The Road to Success". A platform is currently being developed to standardise the format, fonts, photos and graphics that contributors provide.

We would like to thank all of those who participated in these work sessions. If you would like to take part in this stimulating and interactive initiative, please contact the appropriate group leader or Grégoire de Montmollin (gregoire.demontmollin@iploca.com) who has taken over Emma Hachfeld's role.

The working groups and their leaders are as follows:

- **Planning & Design:** Criss Shipman (GIE)
- **Earthworks & Crossings:** Paul Andrews (Fluor)
- **Welding & NDT:** Gustavo Guaytima (TransCanada)
- **New Trends & Innovation:** Mustafa Abusalah (CCC)
- **Coatings:** Erik Broesder (Seal for Life)
- **Environment:** Sue Sljivic (RSK)
- **Logistics:** Bruno Pomaré (Spiecapag)

- **Pre-commissioning:** Vincenzo Calabria (Sicim)
- **Bending:** Geert Dieperink (Maats)
- **Health & Safety:** Alain Gauthiez (Spiecapag)

We look forward to meeting you again in March 2018. The exact dates and venue will be confirmed on our website and via email.



App developers at work with the IPLOCA team in Geneva

MOU signed between IPLOCA and PODS www.pods.org

On 30 October 2017, through the initiative of the New Trends and Innovation Group of the Novel Construction Initiative, IPLOCA signed a Memorandum of Understanding with the Pipeline Open Data Standard (PODS) with the purpose of

collaboration between the respective working groups and with the aim of encouraging IPLOCA's members to adopt and use the pipeline data standard being developed by PODS. The vision is to help deliver a comprehensive and robust pipeline data architecture which meets the information and technological requirements of today's pipeline companies. For more information, contact juan.arzuaga@iploca.com.

Engineering Assessment for Temporary Wooden Pipe Support

Diego D'Alberto and Agostino Napolitano, Saipem



The pipeline industry has no uniform standard for temporary supports during onshore stringing and welding. Wooden cribbing blocks are still widely used for this purpose.

Depending on the environmental circumstances, transversal forces may act on the pipeline leading to the possibility of critical stability conditions for the pipe string. In particular, differential heating results in thermal expansion which can trigger lateral movement of pipeline sections that are initially restrained by friction between the pipe and the skids and by wedging of the installed blocks; if the stored energy exceeds the restraining capability of the skid supports, the pipeline may fall to the ground causing serious injuries or even fatalities.

For an ongoing pipeline construction project in Azerbaijan, Saipem has performed an engineering assessment to select the best temporary support between three types of crutch skids, namely "crutch skid B types 1, 2 and 3", that differ in the geometry of the assembly and in particular by the angle between the vertical and the oblique wood stock on which the pipe is supported. The pipeline subject to the study is a 48" diameter pipe, supported by wooden cribbing

blocks and subjected to high thermal gradient conditions between the two sides of the pipe ($\Delta T=30^{\circ}\text{C}$, assumed to be constant or linearly variable along the pipe string for various field situations during the day).

Sensitivity analyses and 3D FEM analyses have been carried out in order to investigate the influence of pipe string configuration, the presence of bends, the construction sequence and the daily sun irradiation on the skid behaviour, to understand the failure mechanisms and identify the most stable wooden support type in relation to their structural features and geometry.

It has been demonstrated that crutch skid B type 3 is more stable than crutch skid B types 1 or 2 (Figure 3) and therefore its use is recommended. As potential improvement of skid performance level, wooden stock bandaging has been evaluated for the three types of crutch skids, discovering that the method has a significant stabilising effect for crutch skid B type 1 and 2, while has no effect for crutch skid B type 3. Therefore the skid failure mechanism can be widely attributable to geometrical configuration of the wooden stocks and a correct

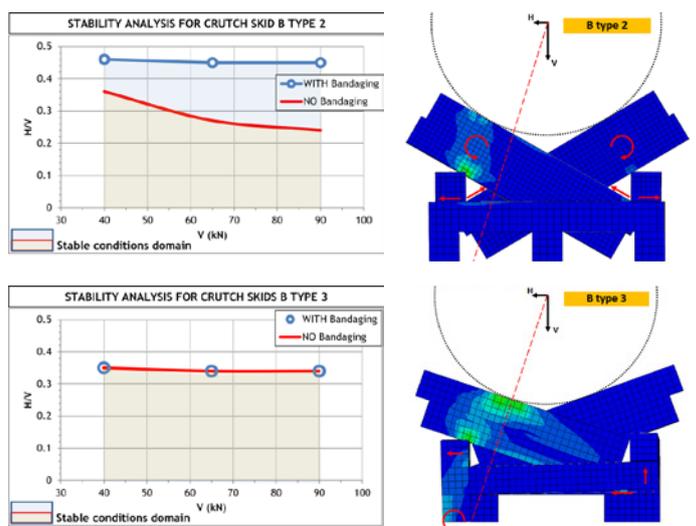


Figure 3: Stability analysis of the crutch skids with and without bandaging of the wooden stocks: the shaded areas represent "stable conditions domain" for the skids; the snapshots from the FEM model to the right, represent the main failure mechanism

assembly of the wooden stocks is highly recommended. It is recommended, in any case, that the work schedule leaves the pipeline string on wooden stocks as little time as possible. According to Saipem's standard safety approach, in order to limit the thermal expansion effects, each daily pipeline string should not be left on wooden stocks but secured (e.g. by replacing temporary stock with soil berms at the most solicited sections).

Laser Cleaning

the Next Revolution in Industrial Cleaning

Jean Claude Philippron (P-laser, Belgium)

Lasers are devices that produce intense beams of light which is a focused energy spot. Laser can travel over great distances with a brightness which exceeds that of the sun. By mastering this incredible amount of energy and since laser technology is very reliable today, the technology offers a wide area of applications from healthy medical devices to industrial applications.

Since the late 1990's there is a growing consciousness to protect the environment. The industrial revolution is at the base of our wealth today and if we want to keep it we need to tackle actual environmental concerns. In addition, cost driven reasons and eco foot print concerns are additional arguments for a new approach. Laser cleaning is fully aligned with this approach. Affordable acquisition costs, easy to use equipment and a very reliable technology support the growing success of laser cleaning within the industry. When large surfaces need to be treated or when very tough material needs to be eliminated, grit blasting and chemical solutions are the primary solutions for the time being. Fortunately industrial innovation is looking for other cleaning solutions such as:

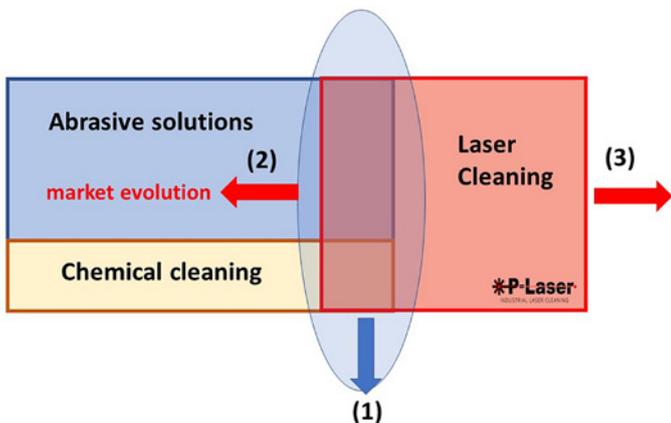


Figure 1: (1) applications today, (2) replacing actual solutions, (3) new opportunities + evolution of the laser technology.

References:

1. Diego D'Alberto, Agostino Napolitano and Salvatore Morgante, "Engineering Assessment For Temporary Wooden Pipe Support", Journal Of Pipeline Engineering, vol.16, no.3, September 2017.
2. D'Alberto D., Napolitano A., Morgante S., Rosato A., "Analysis of Temporary Wooden Cribbing Blocks for Pipe Support". Proceedings of Pipeline Technology Conference, 2-4 May 2017, Berlin.

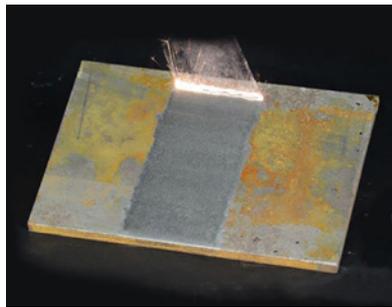


Figure 2

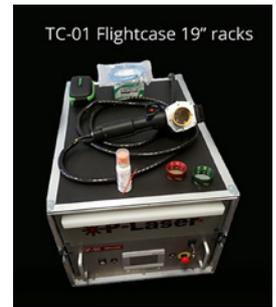


Figure 3

better surface cleaning, higher precision and repeatability of the cleaning path. (Figure 1) New production processes are challenges where only laser cleaning fits.

The development of laser technology is accelerating. Previous methods for the generation of the laser beam based on YAG and CO2 sources are now switching to fibre-laser technology which means a maintenance free source and much more reliable equipment. The life time is up to 40,000 hrs in comparison to classic YAG laser which has a max life time of 10,000 hrs and a lot of maintenance is required.

IPLOCA members are mostly confronted with metal applications which are the most interesting application fields. Before being assembled, steel parts need to be cleaned from any organic dirt such as oil, and in depth derusting before welding – and after welding before getting a protection coating. (Figure 2) An improvement of those activities of the assembly process avoids any quality concerns that can show up later on. Different studies at universities and special laboratories have clearly confirmed the improved cleaning performances against other traditional solutions.

Better welding quality and adhesion of coatings after the welding process is what is being looked for! A basic 100W system (Figure 3) which consumes roughly 500W electrical energy will already surprise you with its cleaning results. In contrast with some other techniques, laser cleaning is very suitable for integration in automated assembly systems. Robots and electro - mechanical manipulators can repeatedly do a perfect job over and over again. In addition

to addressing the quality concerns, laser cleaning offers a wide range of other advantages: apart from having to wear appropriate goggles there is no special protection for the operator, in comparison to grit blasting and chemical cleaning where special equipment is required. The laser equipment is much easier to transport and the startup time is only the time necessary to connect the power plug. Laser technology is not abrasive so it will not damage the material to be cleaned and the operation parameters of the system are very easy to adapt. No consumables (sand, chemicals, etc.) are needed which simplifies and reduces

the operational cost by a factor of 10. An integrated or external suction system will collect the dust for ease of processing afterwards. Although the technology has today reached performance levels expected by the industry, there is still room for innovation. Integration of a wide range of upcoming sensors will improve the overall intelligence of a laser cleaning system. Optimisation of the focus distance, online analysis of the dirt and the population of database to optimise the projected laser pattern on the material are some of the many research fields where laser cleaning will definitively make a breakthrough.

A Step Change in Field Joint Cleaning Technology

Laser technology – an Alternative for Field Joint Abrasive Blast Cleaning

George Bakker, ILA (Industrial Laser Applications B.V.)

At the IPLOCA Novel Construction Plenary Session on 25 October, ILA, a Dutch company that develops industry applications with state of the art laser technology, was given the opportunity to present its developments on laser cleaning and profiling for the pipeline industry.

After decades of development in all kind of laser applications the available laser power and decreasing costs per kW, laser technology opens up for applications in heavy industries. Nowadays laser applications are starting to compete with conventional technologies on both economic and quality aspects. ILA presented the V-One, a fully

automated surface treatment system for FJC cleaning and profiling for onshore pipeline construction. The V-One is one of three pipeline industry applications developed by ILA. Besides the V-One, ILA developed the Vulcan which is an integrated FJC system for offshore applications (Spoolbase, S-lay and J-lay) and cleaning/ profiling equipment (external and internal) for pipe coating plants.

The V-One in Detail

The V-One, a single workstation FJ cleaning and profiling process delivers: Cleaning and preparing of the bare metal, Profiling of coating/ insulation, Providing video and data evidence for QA. The V-One consists of a tractor with hydraulic crane and 10 foot container equipped with laser source and control system, an umbilical and crane attached laser safe containment with optical scanner(s) and monitoring equipment. The one-man operating procedure is a step-by-step interlock protected and controlled operation by driving to the FJ location, positioning and closing the V-One around the pipe and starting the cleaning and profiling cycle (Figure 1). The next step is to open and remove the V-One leaving the field joint ready for coating and drive to the next position. During a full cycle all data is



Figure 1



Figure 2

collected and available for quality control. For clarity, with the V-One system: Grit blasting becomes obsolete; Human risk factor is minimised; QA/QC is automated and logged; Industry standard criteria apply.

Why Laser

Science and manufacturing communities began to see the real practical uses of laser beams not long after their discovery in the 1960's. There is a wide range of applications which are proven and accepted technologies. ILA's R&D programme up to proof of concept showed that it is able to deliver a consistent surface profile of 70µm Rz over the full area of the field joint at a surface cleanliness according to the SA 2.5 standard (Figures 2 and 3). With the ILA V-One system, automated and repeatable results are achieved without environmental contamination, limited maintenance, reduction in equipment footprint and significant reduction in manpower, saving approximately 3 to 4 operatives per shift.

The Benefits

The main benefits of the ILA V-One are that it reduces the current process to one workstation with a significant

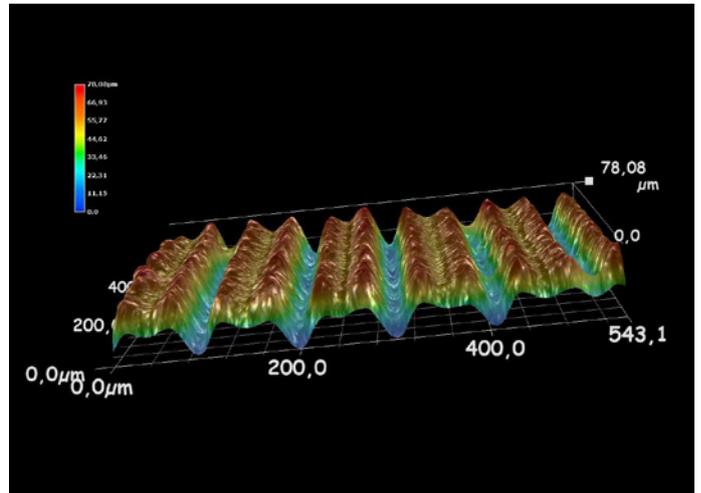


Figure 3

reduction of total cycle time and a controlled product/ quality consistency. Besides the reduction of logistic supplies (abrasive grit becomes obsolete) resulting in a positive effect on environmental impact, the V-One also reduces the power consumption and requirements. All of these benefits combine to reduce integral costs and improve QA.



R.Konda, M. Abusalah, B. Guy de Chamisso, B. Quereillahc, B. Pomaré

Remembering Bernard Quereillahc

It is with great sadness and heavy hearts that we inform you of the passing of Bernard Quereillahc, during the night of 23 November.

After 52 years in the pipeline industry and having worked on pipeline projects in as many countries around the world, Bernard retired from Volvo Construction Equipment towards the end of 2015. Bernard was one of the founders of IPLOCA's Novel Construction Initiative, and as such he was a great contributor to, and enthusiastic supporter of, the book "The Road to Success". Prior to joining Volvo Construction Equipment in 2007, Bernard had worked for many years with Spiecapag.

In the words of Bruno Pomaré of Spiecapag, "Bernard was a true pipeliner, loving this particular job that gives us the chills. He was inventive, always trying to find the best technical solution for the construction teams. We had a long relationship developed after all those years in Spiecapag and he is the one who presented the Novel Construction Initiative to me back in the early 2000s. I remember that together we visited the PNG LNG project late 2011. It was quite something for Bernard to visit the site where he had worked 20 years before for the Kutubu project, and to see Kikori again."

Rodrigo Konda said that when he was on a job with Volvo, towards the end of 2008 (that had nothing to do with oil and gas) he remembers how much it was impossible not to admire Bernard when first meeting him, "when listening to him, not only advocating, but truly living and breathing from the segment with his large experience. A couple of years later, destiny made our paths cross again and this time with the privilege of working closely with him, having the chance to learn a little from his huge wisdom and mostly, having the honour to get to know, respect and admire him as a good friend."

Bernard was a great source of inspiration and admiration to many of his IPLOCA friends and colleagues. He will be greatly missed by all who met him. Our thoughts and compassion are with his wife Marisa and their family during this difficult time.

Upcoming Events

2018

PPIM – Pipeline Pigging and Integrity Management

29 January - 1 February – Houston, TX, U.S.A.
www.clarion.org/ppim/ppim18

Pipeline Coating

13-15 February – Vienna, Austria
www.ami.international/events/event?Code=C850

PLCA 70th Annual Conference

13-17 February – Koloa, HI, U.S.A.
www.plca.org

Horizontal Directional Drilling Academy

22-23 February – Tempe, AZ, U.S.A.
www.hddacademy.com
(20% discount available for IPLOCA members)

DCA 57th Convention

25 February - 3 March – Dana Point, CA, U.S.A.
www.dcaweb.org

EPOCH – Exploration and Production Offshore Congress Hub

5-6 March – Rome, Italy
www.oilepoch.com
(15% discount available for IPLOCA members)

Pipeline Technology Conference

12-14 March - Berlin, Germany
www.pipeline-conference.com
(15% discount for IPLOCA members on booth rental booked before 31 December)

PIG – The Pipeline Industries Guild Dinner

13 March – London, U.K.
www.pipeguild.com

IPLOCA Novel Construction Initiative Spring Session

15-16 March – Berlin, Germany (TBC)
www.iploca.com/novelpenarysession



Pipeline Opportunities Conference

3 April – Houston, TX, U.S.A.
www.pipeline-opportunities.com

The Pipeline & Energy Expo

3-5 April – Tulsa, OK, U.S.A.
www.pipelineenergyexpo.com

IPLOCA HSE & CSR Committee Meeting

(HSE & CSR Members only)
10 April (date and place to be confirmed)



PLCAC 64th Annual Convention

22-26 April – Nashville, TN, U.S.A.
www.pipeline.ca

Hannover Messe

23-27 April - Hannover, Germany
www.hannovermesse.de

Offshore Technology Conference

30 April - 3 May - Houston, TX, U.S.A.
2018.otcnet.org

IPLOCA 52nd Annual Convention

10-14 September – London, U.K.



Other Important IPLOCA Dates

Member News for IPLOCA March Newsletter

15 January - Deadline for submissions
caroline.caravellas@iploca.com

Member News for IPLOCA June Newsletter

15 April - Deadline for submissions
caroline.caravellas@iploca.com

IPLOCA Media Partners

Media Partners' editorial opportunities are available for IPLOCA Members. Contact: caroline.caravellas@iploca.com.

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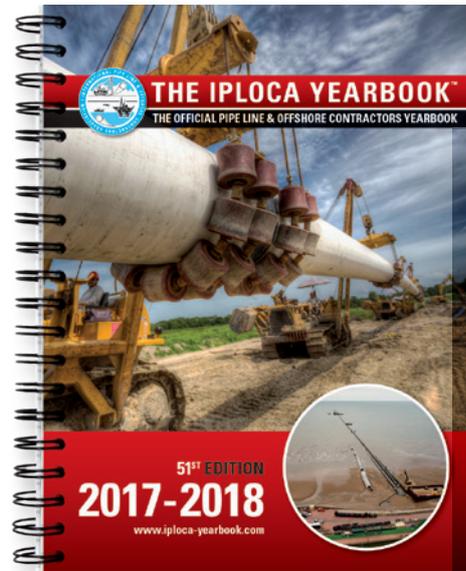
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IPLOCA Yearbook

51st Edition

Letter from the Publisher

At the end of November, the 51st edition of the IPLOCA Yearbook was distributed worldwide to the desks and in the field offices of pipeline companies.

The IPLOCA Yearbook is available in hardcopy and a quarterly updated version can also be accessed on your mobile phone at mobile.iploca-yearbook.com

Do not hesitate to send us the addresses of the persons to whom you wish us to send a copy of the IPLOCA Yearbook. Additional printed copies can be obtained on request: www.iploca-yearbook.com.

We hope this edition will again meet your expectations but we always appreciate your comments and suggestions.

Please continue to send any company updates (address changes or contact names) to listing@iploca-yearbook.com and be sure to also send a copy to sarah.junod@iploca.com. In this way we will be able update all our mailing lists and the membership database.

We wish all our readers a joyful, festive season with the prospect of a safe and healthy New Year.

Pieter & Peter Schoonenberg

Publishers IPLOCA Yearbook
Pedemex B.V.

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2017-2018



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