

# **IPLOCA New Technologies Committee**

**Scot Fluharty**

New Technologies Committee  
Chairman

# New Technologies Committee 2017 Activities

- Continued development of *The Road to Success*
- Conversion from a paper document to a mobile app
- Further development of PRCI lowering in study
- Sharing agreement with PODS

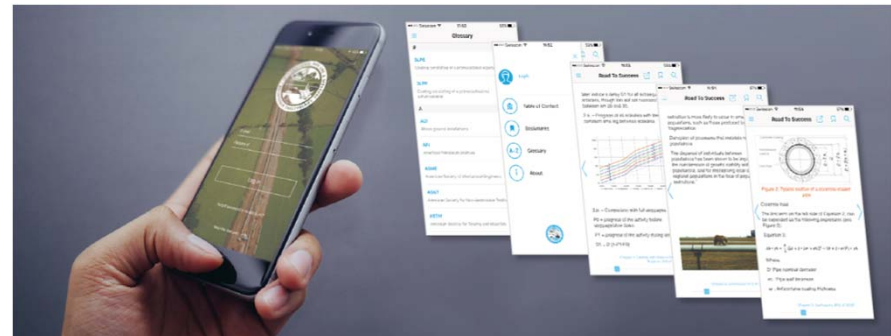
# The Road to Success

## Contents

1. Health and Safety in Pipeline Projects
2. Development Phases of a Pipeline Project
3. The Baseline of a Construction Contract
4. Dealing with Risks in Pipeline Projects
5. Planning and Design
6. Earthworks
7. Crossings
8. Logistics
9. Welding
10. Non-Destructive Tests
11. Coatings
12. Pipelines and the Environment
13. New Trends and Innovation
14. Bending
15. Hydrostatic Testing & Precommissioning
16. Research Projects



**4<sup>th</sup> Edition February 2017 as a mobile app  
on Android and iOS**



## Once you login...

Profile name

Table of Content

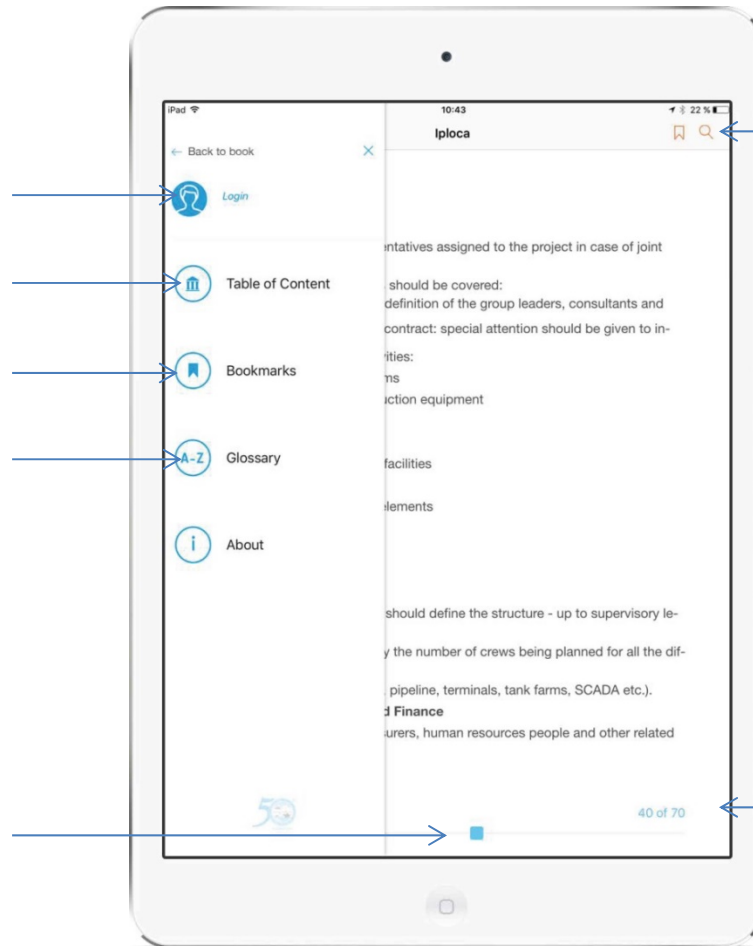
Bookmarks

Glossary

Scroll option

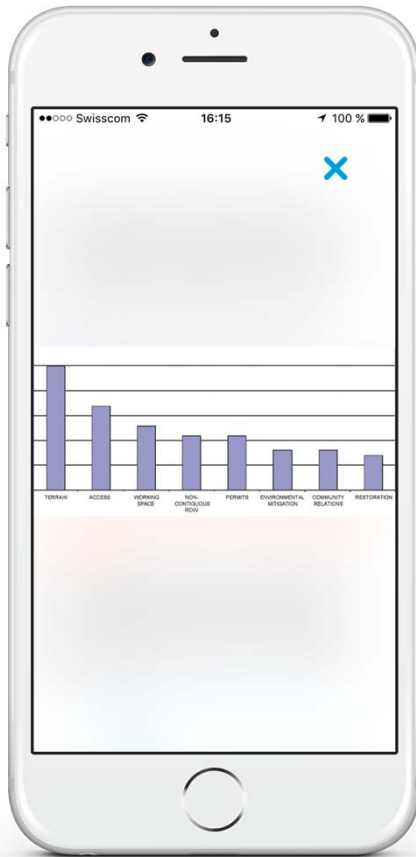
Search tool

Page number

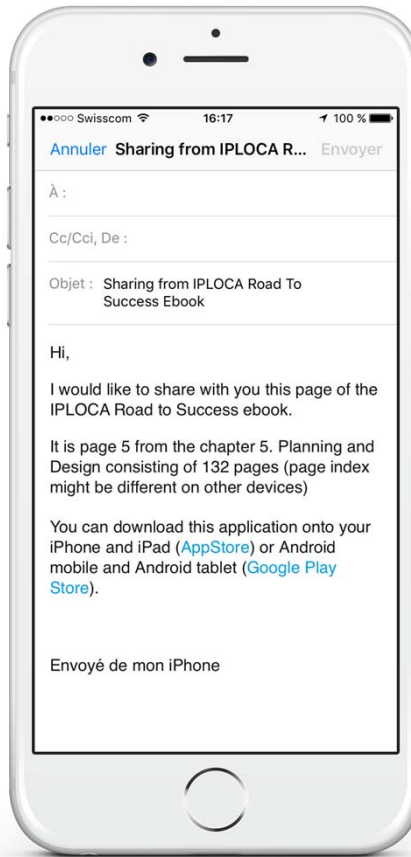




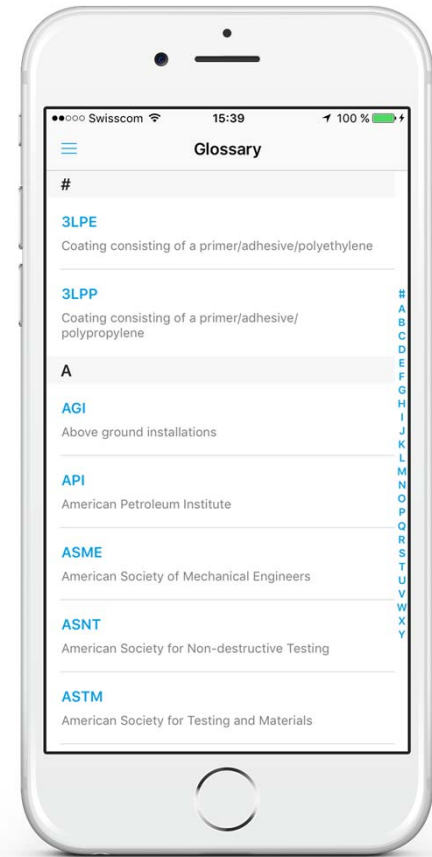
## The Road to Success: Reading features



*Zoom Mode*



*Page sharing*



*Glossary search*

## The Road to Success

- on iOS and Android, open the App / Play Store and search for IPLOCA

Password: RtS2017

- Already 1167 apps downloaded to date
- Pdf available upon request to [roadtosuccess@iploca.com](mailto:roadtosuccess@iploca.com)

## Novel Construction Fall Session

Wednesday 25th and Thursday 26th October  
Geneva Switzerland

- presentations by industry technology leaders
- opportunity to participate in 10 different subcommittees working on

*The Road to Success*

**Registration is required**

**[www.iploca.com/novelplenarysession](http://www.iploca.com/novelplenarysession)**



# **Novel Construction Fall Session**

Wednesday 25th and Thursday 26th October  
Geneva Switzerland

## **Topics of presentations include:**

- Engineering Assessment for Temporary Wooden Line-pipe Support
- Bridging Buried Pipelines
- Laser Cleaning for Industrial Applications
- Laser Technology – Alternative for Field Joint Abrasive Blast Cleaning
- Innovation and Safety in HDD Exit Side Operations
- Electronic Detonators for Trench Blasting
- Dispute Avoidance in Infrastructure Projects





# **2017 IPLOCA New Technologies Award sponsored by BP**



## IPLOCA Awards

### Awards are intended to:

- Reward those who are "leading by example"
- Share information amongst the industry
- Inspire the industry for new initiatives
- Profile the industry trends



# American Augers Electric Auger Boring Machine 36/42-600E

IPLOCA New Technologies Award







EQUIPMENT  
MANAGEMENT



PRODUCTIVITY



SAFETY



SUSTAINABILITY



# Going Digital with Drone Solution

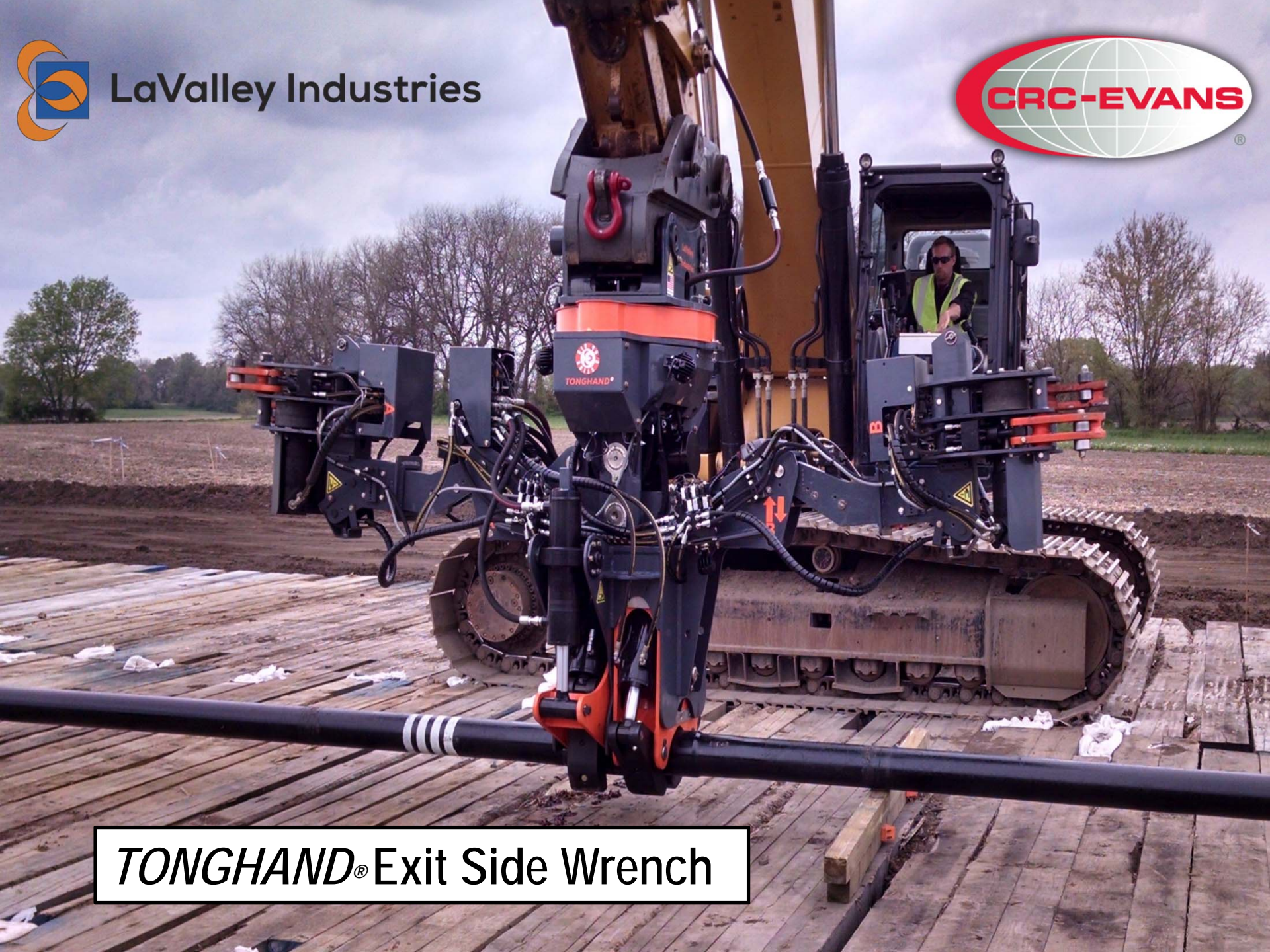
- Nomination to IPLOCA New Technology Award







LaValley Industries



***TONGHAND®*** Exit Side Wrench

**LAURINI**  
**OFFICINE**  
**MECCANICHE**



**LLS**  
**LAURINI LAYING**  
**SYSTEM**







# GEOGRID FOR EXISTING BURIED PIPELINES CROSSINGS

2017 IPLOCA New Technologies Award  
sponsored by  
BP

Fano, Italy - May 17



IPLOCA 2017 - New Technologies Award

“Front winch ex-cavator”







# AUTOMATED & MECHANISED FIELD JOINT COATING CREW

IPLOCA NEW TECHNOLOGIES AWARD SPONSORED  
BY BP



**IPLOCA**

INTERNATIONAL PIPE LINE & OFFSHORE  
CONTRACTORS ASSOCIATION





# **2017 IPLOCA New Technologies Award, sponsored by BP**

**Runner-Up**



IPLOCA 2017 - New Technologies Award

“Front winch ex-cavator”





## Findings:

In pipeline construction to perform activities on steep slopes and unstable ground, equipment and heavy machinery must be secured to a winch. Traditional winching operations could have the following issues:

- Heavy equipment working on steep slopes require very large winches that can be stationary or rear-mounted on standard machinery like dozer or sideboom.
- Major impact on Health and Safety due to trailing machines on steep slopes and the coordination of various machines entailed.
- Major impact on Health and Safety for lifting operations and transport.
- Major impact on timing and costs for the installation, anchoring and for the additional machines involved.
- Rear mounted winches have limited rope capacity and pulling force, and the operator must progress reversing on slopes.





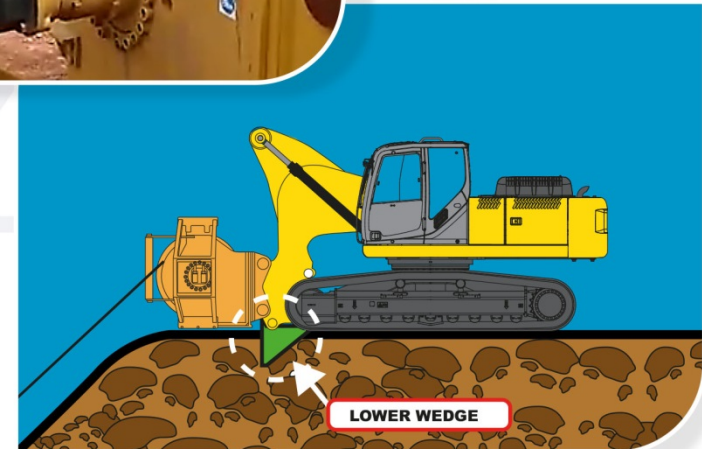
## Solutions:

### Front winch Ex-cavator:

- Machine with low weight, easy to move.
- Machine ready to work in 15 minutes; easy to fix and install.
- Able to pull itself on steep slopes.
- Completely independent; additional machines not necessary.
- High performance and double safety factors: 2 motor gear units = double pulling force and double brake.
- Working area always in front of operator's cab and under operator's control that can view winching activities continuously.
- Loading + Transport + offloading operations are simple and safe.
- Specific cabin protection.



Electrical device



## Achievements:

- 360° Working area
- High rope capacity:  
490 m @ 7<sup>th</sup> layer of Ø 32 mm rope.
- High pulling force:  
40 ton @ 1<sup>th</sup> layer.
- Electrical device allows to monitor the winch performance and to check the winch wear and tear.



2 motor gear and double brake





For additional information  
Please contact

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# **2017 IPLOCA New Technologies Award, sponsored by BP**

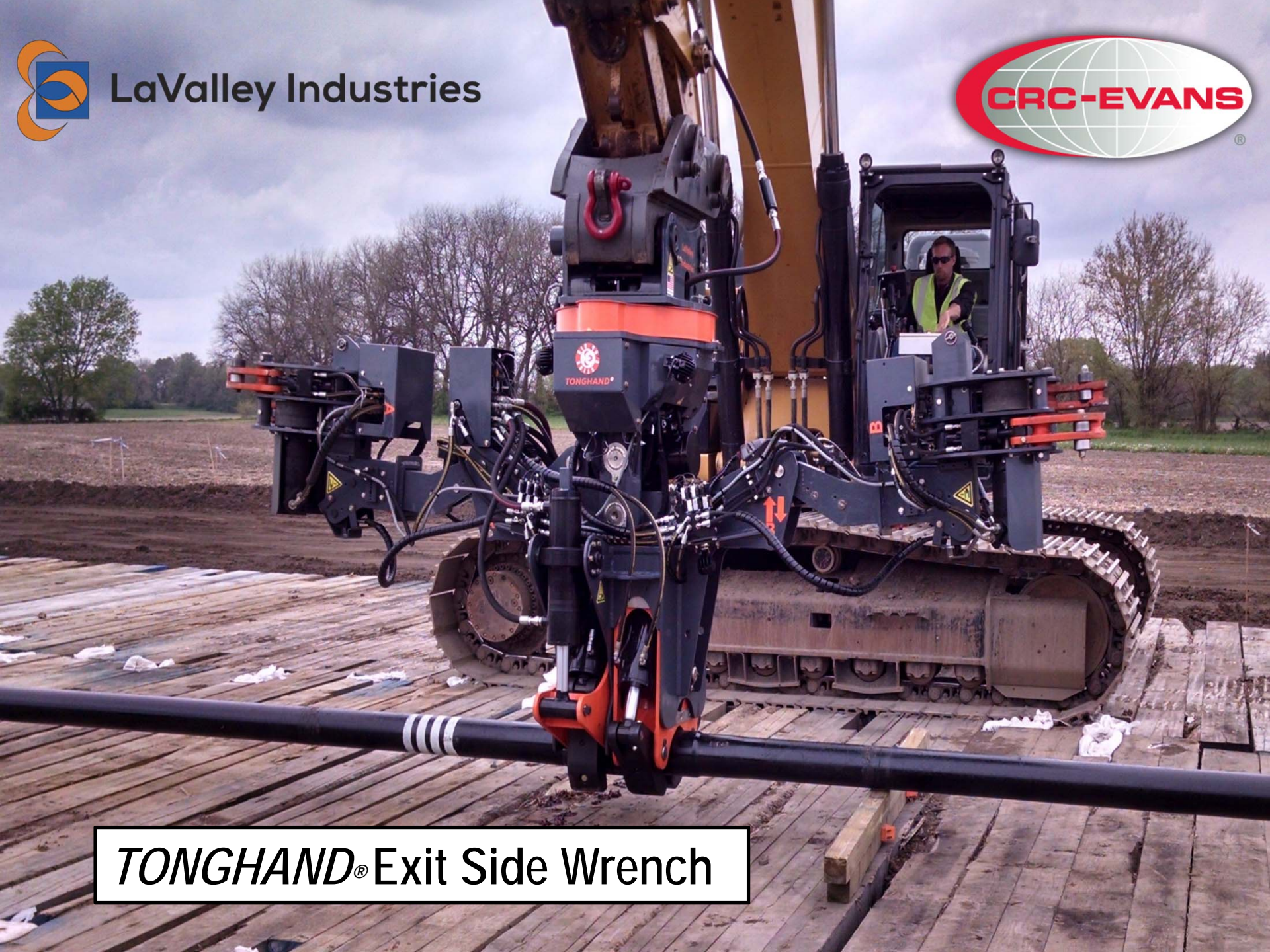
**Winner**







LaValley Industries



***TONGHAND®*** Exit Side Wrench



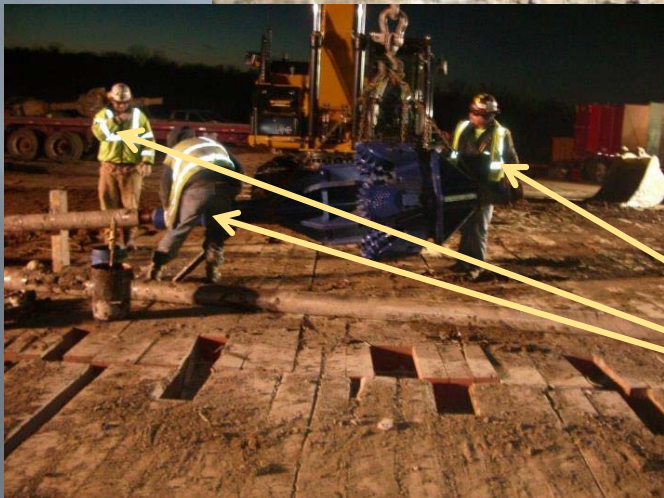
# Traditional Exit Side Methods



"Choking" the  
pipe string



Pushing down on  
chain wrenches

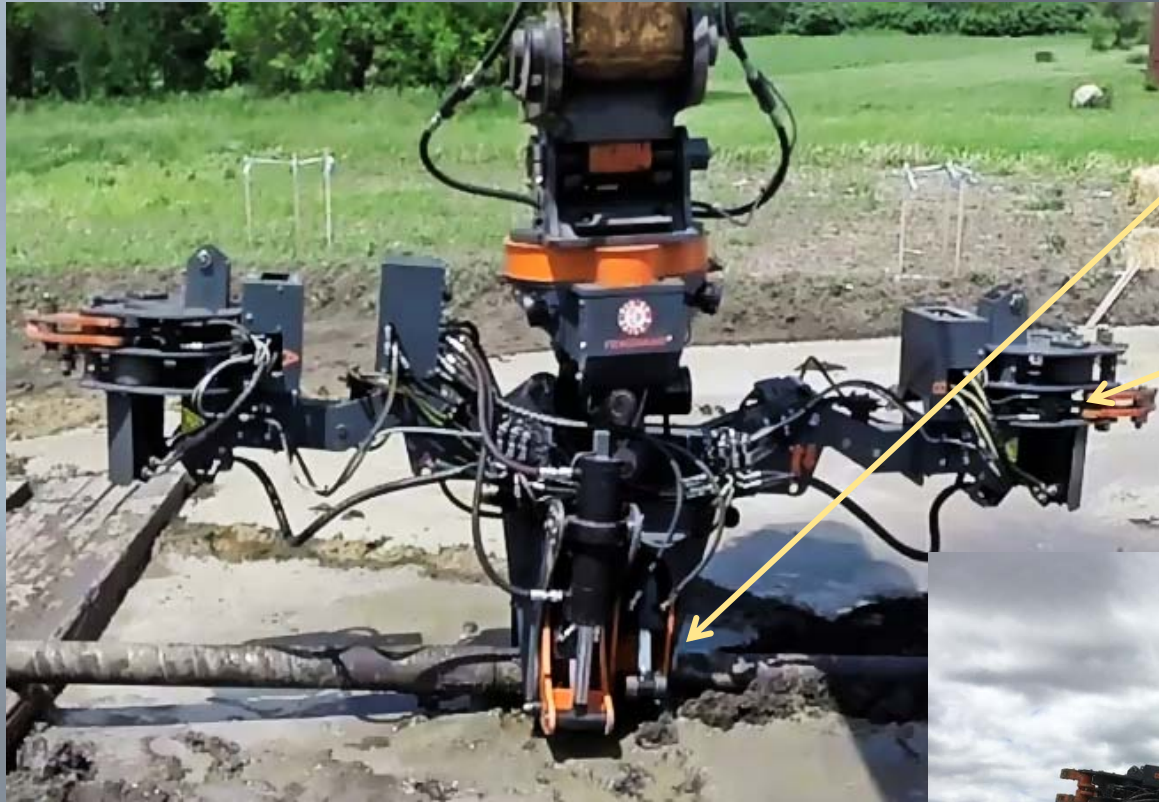


Workers at tool  
joint



# TONGHAND®

## Vise Action



Tongvise™  
torques and un-  
torques joints up  
to 120,000 ft -lb.

Gull Wing Arms  
raise out of way

No workers at  
tool joint



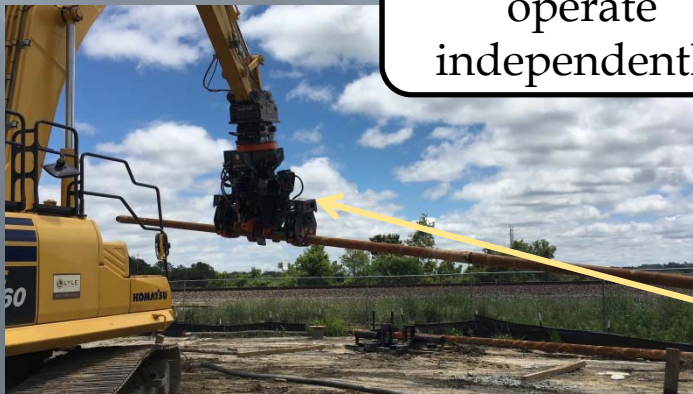


# TONGHAND®

## Pipe Rotation



Roller Arms can  
operate  
independently



Can be used as a  
pipe handler



Roller Arms spin  
drill rod

# TONGHAND®

## In-Cab Controls

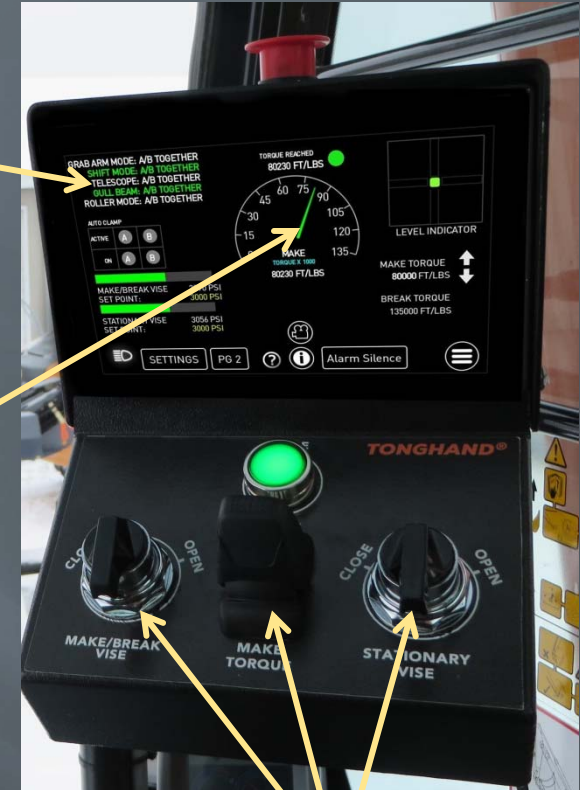


In-cab touch display sets all TONGHAND® operating parameters

Tool joint being torqued to 80,000 ft-lb.

Proportional control handles activate all TONGHAND® motions

TONGHAND® TongVise™ controls activate all vise actions

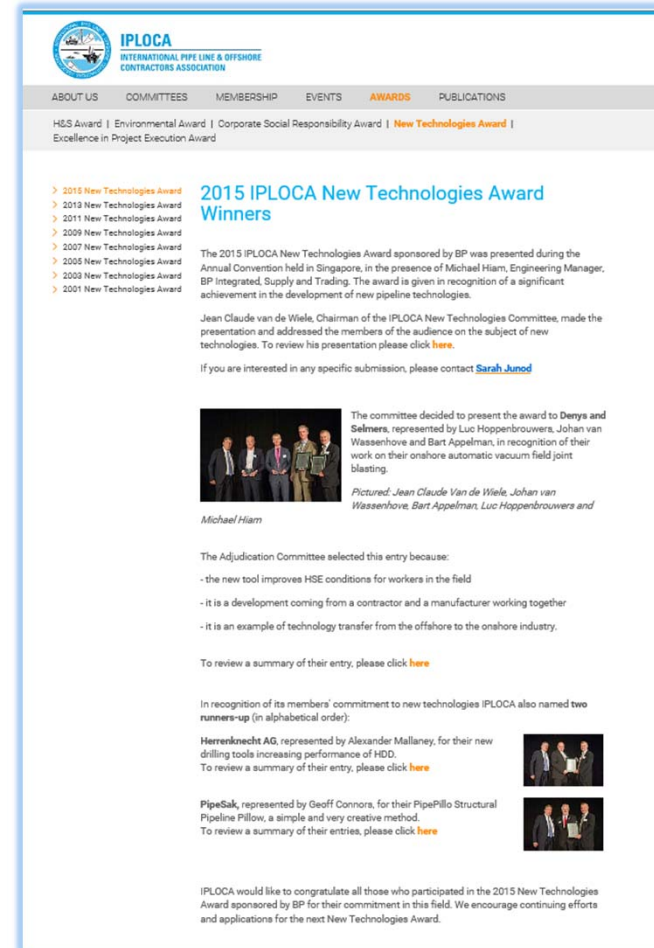




## IPLOCA Awards

Details on winning entries  
available online at

[www.iploca.com](http://www.iploca.com)



The screenshot displays the IPLOCA website's 'AWARDS' section. The header includes the IPLOCA logo and navigation links: ABOUT US, COMMITTEES, MEMBERSHIP, EVENTS, AWARDS, and PUBLICATIONS. Below the header, a list of award categories is shown, with 'New Technologies Award' highlighted. The main content area is titled '2015 IPLOCA New Technologies Award Winners'. It features a list of past winners from 2001 to 2015, with the 2015 award being the focus. The text describes the award's purpose and mentions the presentation by Michael Hiam. A photograph shows Jean Claude Van de Wiele, Johan van Wassenhove, Bart Appelman, Luc Hoppenbrouwers, and Michael Hiam. The committee's decision to award Denys and Selmers is detailed, along with the reasons for selection. The page also lists two runners-up: Herrenknecht AG and PipeSak, each with a small photograph of the winners.

**IPLOCA**  
INTERNATIONAL PIPE LINE & OFFSHORE  
CONTRACTORS ASSOCIATION

ABOUT US | COMMITTEES | MEMBERSHIP | EVENTS | **AWARDS** | PUBLICATIONS

H&S Award | Environmental Award | Corporate Social Responsibility Award | **New Technologies Award** | Excellence in Project Execution Award

2015 New Technologies Award  
2013 New Technologies Award  
2011 New Technologies Award  
2009 New Technologies Award  
2007 New Technologies Award  
2005 New Technologies Award  
2003 New Technologies Award  
2001 New Technologies Award

### 2015 IPLOCA New Technologies Award Winners

The 2015 IPLOCA New Technologies Award sponsored by BP was presented during the Annual Convention held in Singapore, in the presence of Michael Hiam, Engineering Manager, BP Integrated, Supply and Trading. The award is given in recognition of a significant achievement in the development of new pipeline technologies.

Jean Claude van de Wiele, Chairman of the IPLOCA New Technologies Committee, made the presentation and addressed the members of the audience on the subject of new technologies. To review his presentation please click [here](#).

If you are interested in any specific submission, please contact [Sarah Junod](#)

The committee decided to present the award to Denys and Selmers, represented by Luc Hoppenbrouwers, Johan van Wassenhove and Bart Appelman, in recognition of their work on their onshore automatic vacuum field joint blasting.

*Pictured: Jean Claude Van de Wiele, Johan van Wassenhove, Bart Appelman, Luc Hoppenbrouwers and Michael Hiam*

The Adjudication Committee selected this entry because:

- the new tool improves HSE conditions for workers in the field
- it is a development coming from a contractor and a manufacturer working together
- it is an example of technology transfer from the offshore to the onshore industry.

To review a summary of their entry, please click [here](#)

In recognition of its members' commitment to new technologies IPLOCA also named two runners-up (in alphabetical order):

**Herrenknecht AG**, represented by Alexander Mallaney, for their new drilling tools increasing performance of HDD.  
To review a summary of their entry, please click [here](#)

**PipeSak**, represented by Geoff Connors, for their PipePillo Structural Pipeline Pillow, a simple and very creative method.  
To review a summary of their entries, please click [here](#)

IPLOCA would like to congratulate all those who participated in the 2015 New Technologies Award sponsored by BP for their commitment in this field. We encourage continuing efforts and applications for the next New Technologies Award.