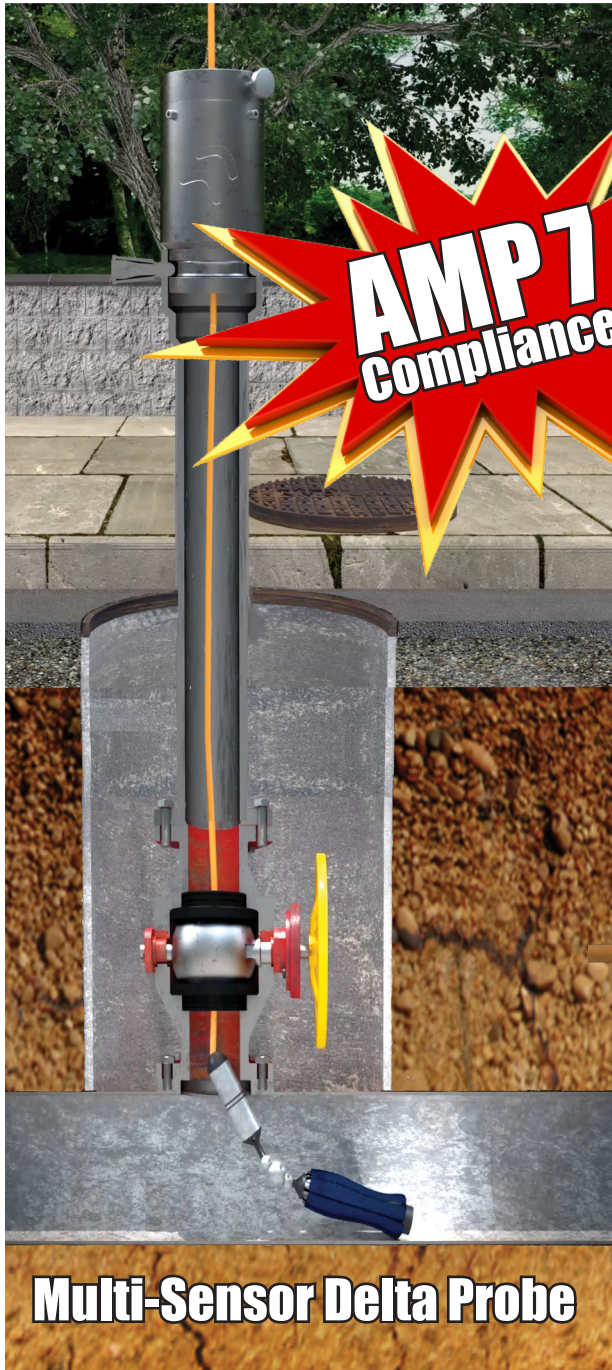


In Case You Missed The Electro Scan UK Webinar

# Accurately Find Leaks In Pressurised Water Mains...

EU & UK Water Utilities Attend Exclusive Webinar & Learn How Leaks Can Be Measured in Liters Per Sec With 1cm Accuracy



**Multi-Sensor Delta Probe**

**AMP 1 Compliance**



## ...and Rising Mains.

**NEW**

### Key Highlights

- 1cm Locational Accuracy.
- Liters per Second (l/s).
- Multi-Sensor Delta Probe.  
**Acoustic / CCTV / Conductivity**
- Single (Not Multiple) Insertion for Potable Water Surveys.
- Up to 1km Survey Lengths, Subject to Operational Review.
- Cloud Reporting in Minutes, Not Days, Weeks, or Months.



# IN CASE! YOU! MISSED IT!

**“Stop Chasing Low Quality Leaks with Listening Sticks, Data Correlators, and Acoustic Sensors.”**

*Chuck Hansen, Chairman, Hansen Holdings LLC and Electro Scan Inc.*

BEST  
IN  
CLASS





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# 1 YouTube™ 1-hr Webinar Recording Available

UK Webinar Featuring Electro Scan's New Multi-Sensor Delta Probe

**Next Generation Leak Detection**

Host: *Carissa Boudwin, VP Marketing, Electro Scan Inc.*

*Chuck Hansen, Chairman, Hansen Holdings, LLC*  
*Brad Weston, Director, Electro Scan (UK) Limited*  
*Charles Wilmut, PE, Senior Advisor, Electro Scan (US) Inc.*

**11:00AM**  
**10**  
**JUNE**

**Brad Weston, Swindon, UK**

**Chuck Hansen, USA**

**Charles Wilmut, USA**

0:01 / 56:20

The image shows a video player interface for a webinar. On the left, there are three video thumbnails of the speakers: Brad Weston, Chuck Hansen, and Charles Wilmut. The main area features a stylized map of the United Kingdom with a green and yellow color scheme, overlaid on a futuristic cityscape with blue water splashes at the bottom. The title 'Next Generation Leak Detection' is prominently displayed at the top. Below the title, the host's name and the speakers' names are listed. A large date and time stamp indicates the webinar is on June 10th at 11:00 AM. At the bottom left, there is a video progress bar showing 0:01 / 56:20. At the bottom right, there are standard video player controls like play, volume, and full screen.

## 2 Webinar Slides

Including Original Slides,  
Animations, & Videos.  
700 mb Microsoft® PPTX File

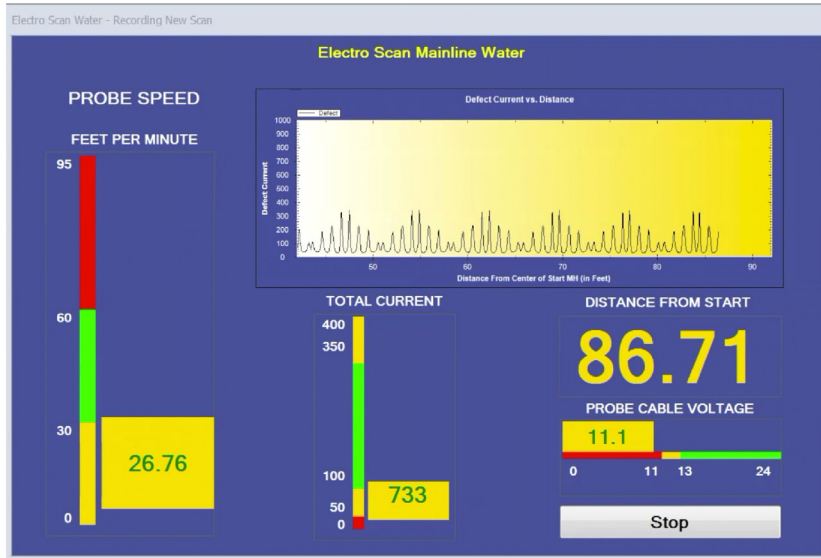


## 3 Webinar Slides A4

Including Print-Ready  
71-Slides. 23 of 71 Shown Here.  
21 mb Adobe PDF File



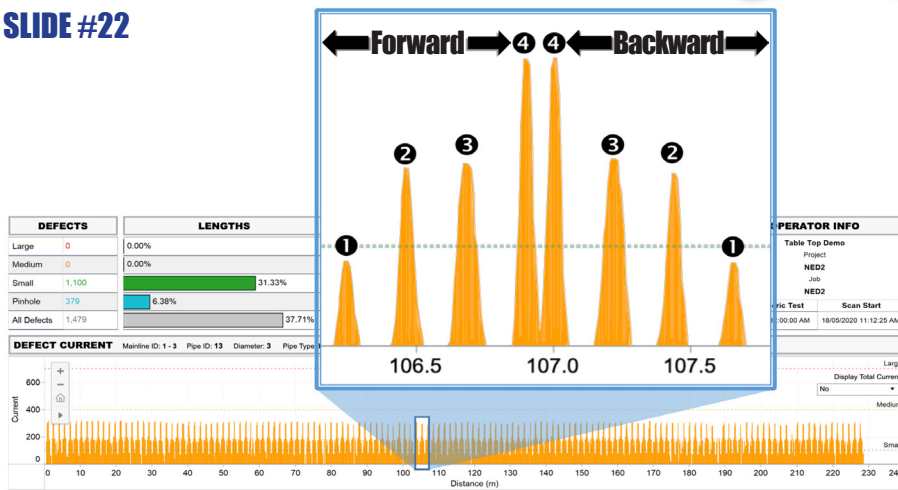
# Low Voltage Conductivity Achieves 100% Leak Location in All Plastic Pipes



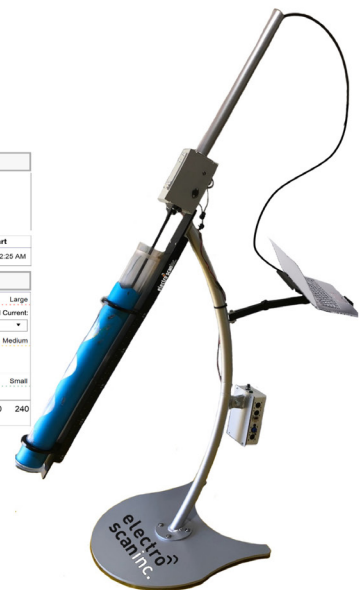
## Conductivity Benchmark Testing



SLIDE #22



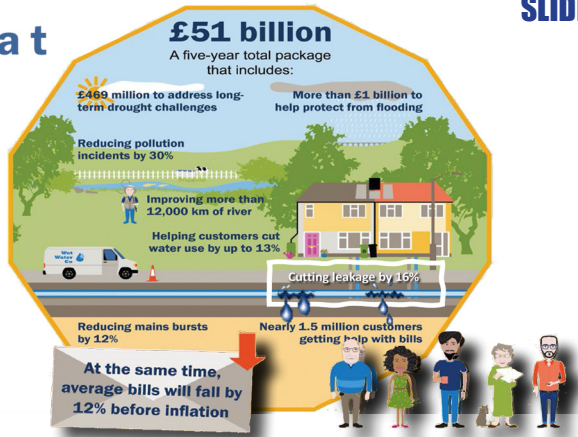
18/5/2020



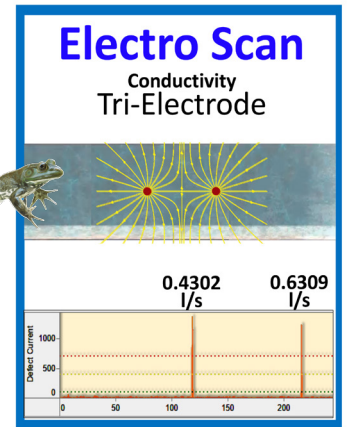
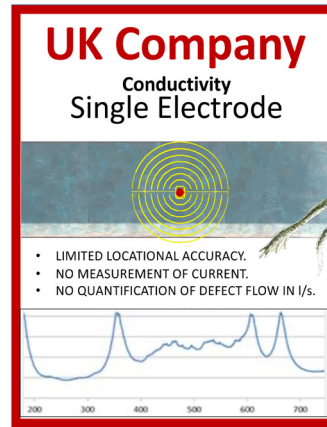


# UK Webinar...

ofwat



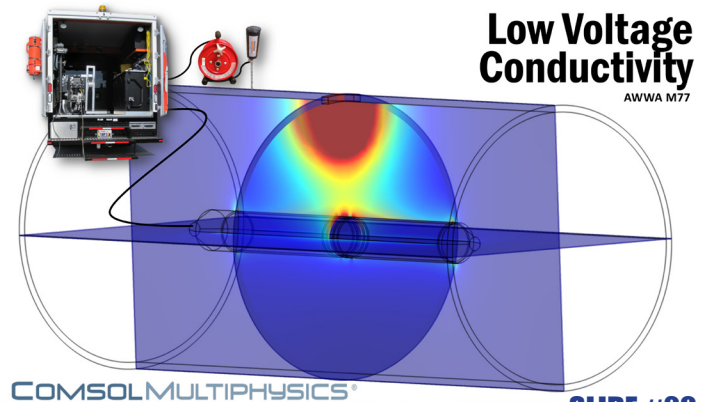
SLIDE #6



SLIDE #18



SLIDE #9

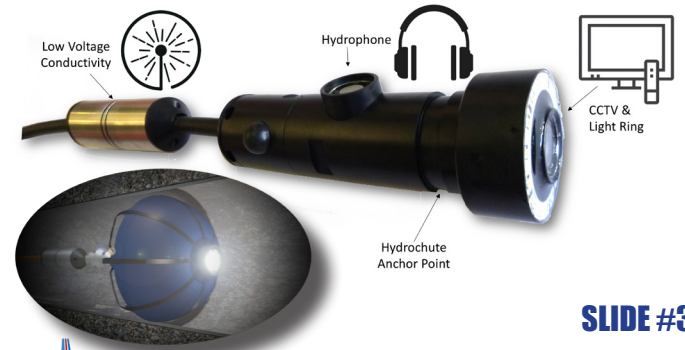


SLIDE #20

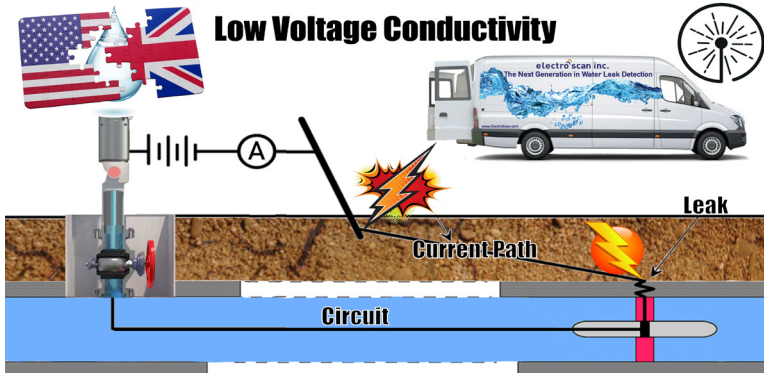


SLIDE #16

## Now Available for UK Projects



SLIDE #30



If a pipe leaks electric current, it leaks water. And, the flow rate can be measured in I/s.

SLIDE #17

Feature	Performance	Pipe Materials
Sensors	Acoustic, Conductivity, CCTV, Pressure.	<ul style="list-style-type: none"> <li>ASBESTOS CEMENT PIPE</li> <li>CAST &amp; DUCTILE IRON PIPE</li> <li>CEMENT-LINED PIPE</li> <li>CURED-IN-PLACE PIPE</li> <li>GLASS REINFORCED PIPE</li> <li>HIGH DENSITY POLYETHYLENE</li> <li>PLASTIC PIPE, including PVC uPVC, HDPE, MPE, PE</li> <li>PRE-STRESSED CONCRETE CYLINDER PIPE</li> <li>REINFORCED CONCRETE PIPE</li> <li>INTERNALLY-COATED STEEL PIPES</li> <li>And, <b>RISING SEWER MAINS.</b></li> </ul>
Pipe Diameters	76-1500mm (3-60 inches)	
Pressure	ZERO to 10 bar (145 psi)	
Temperatures	2-50° C (36-120° F)	
Common Launch Points	Air Release Valves, Blow Off Valves, Gate Valves, Hot Taps, Hydrants, Meters.	
Flow Velocity	Min Flow Rate for Delta Rider Hydrochute is 0.3m/sec. Push rod version able to handle NO FLOW conditions.	
Pricing	Per Day or Per Meter Based on Total. Project Size, Difficult Entry Access, Openings, Diameter, Traffic Control.	
Pipe Lengths Per Survey	1km for Acoustic / Conductivity / CCTV Up to 2km w/specialised equipment.	
Average Production	Up to 1km per day depending valve location and operational readiness.	

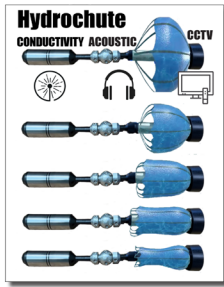
SLIDE #31



# ...UK Webinar...

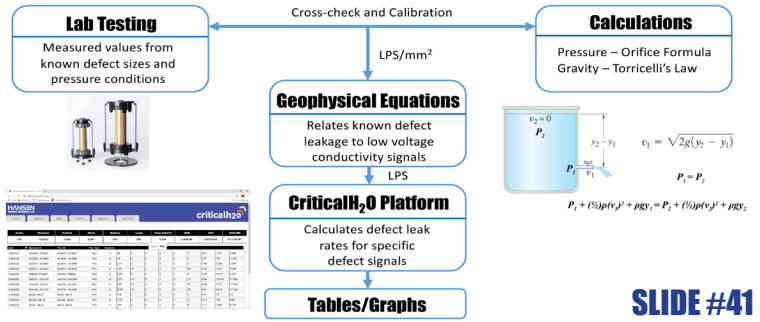
## Multi-Sensor Delta Water Probe

Insertion - Navigation - Retrieval

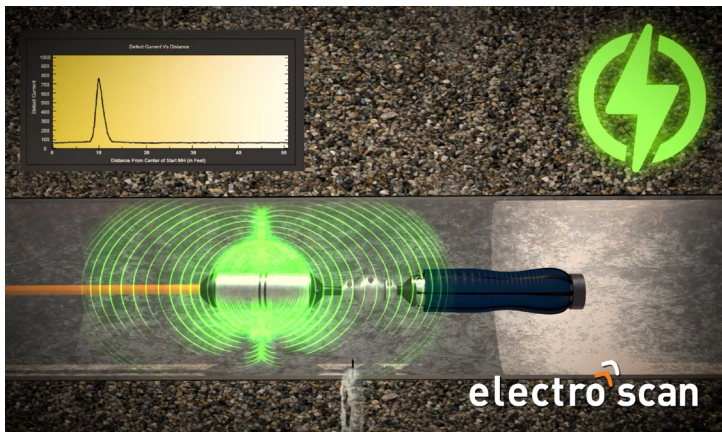


SLIDE #32

## Defect Flow Rate Calculation



SLIDE #41

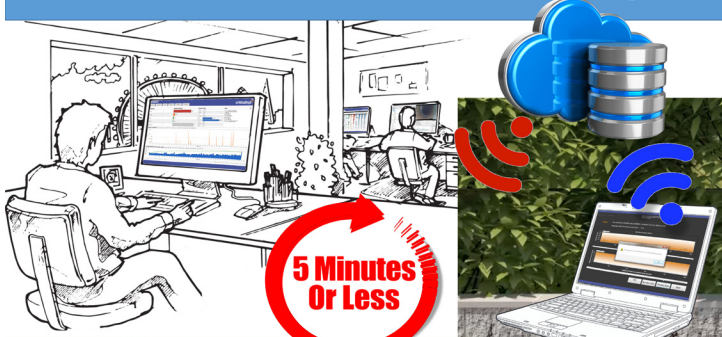


SLIDE #35



SLIDE #45

## Critical H2O Cloud Processing



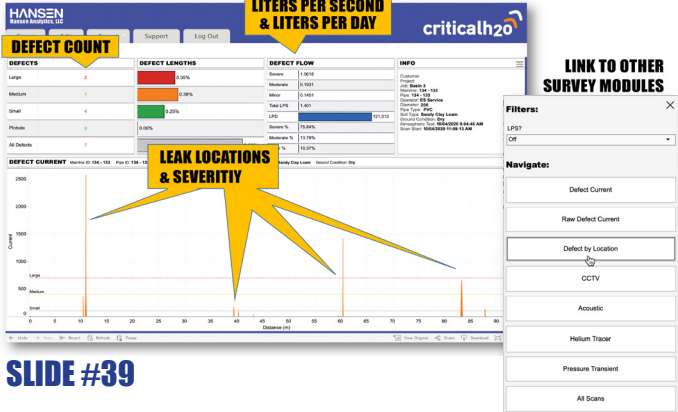
5 Minutes Or Less

SLIDE #37

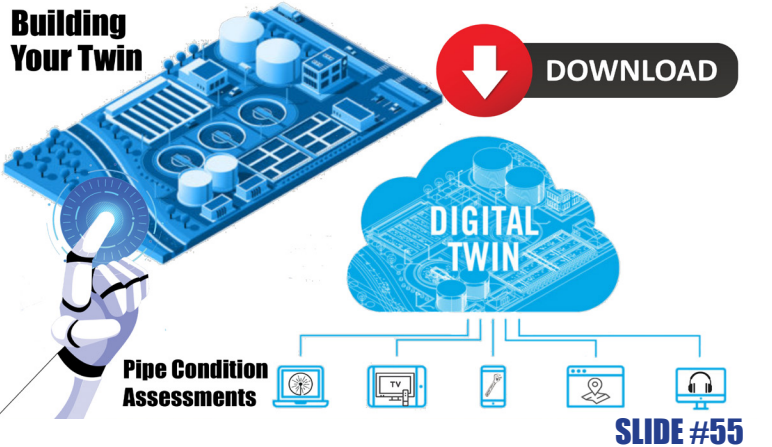


SLIDE #48

## Cloud Reporting



SLIDE #39



SLIDE #55



# ...UK Webinar...

electro<sup>o</sup>scan

Innovyze®



SLIDE #56

InfoAsset Planner Demo - ArcMap

File Edit View Bookmarks Insert Selection Geoprocessing Customize Windows Help

InfoAsset Planner | Water, Water Distribution N |

Table of Contents

- Layers
- CCTV Analysis Results (Electro\_Scan\_Import)
- Connections
- Continuous
- GPM
- 0.01 - 1.05
- 1.0501 - 2.27
- 2.2701 - 3.67
- 3.6701 - 7.07
- 7.0701 - 10
- Electro Scan Data - Defects
- Defects
- GPM
- 0.01
- 0.0101 - 0.04
- 0.0401 - 0.06
- Water Mains

Condition Assessment - Water Main "131222" (2 Inspections)

Survey Import Electro\_Scan\_Import Rehab Plan RehabPlan1

Scan Graph Defect View Defects Connections Continuous Draft Rehab Final Rehab

Upstream

0.005 LPS

0.006 LPS

12

9-3

23

27

125 (m)

0.84

0.73

0.64

0.51

00-01-18 / 00:08:17

Set Video Offset Time (seconds) 0

Set Play Buffer Length (Feet) 0.5

Loop Selected Record

Close

Operation Center

- Analysis
- Survey Data Import
- Electro Scan
- Electro\_Scan\_Import
- Consequence of Failure (COF)
- COF1, Diameter
- COF2, Proximity to Fire Stations
- COF3, Proximity to Parks
- COF4, Proximity to Police Stations
- COF5, FEMA Flood Zone
- COF6, Buried under Building
- COF7, Decision\_Tree, Intersection with 2
- COF7, Decision\_Tree, Capacity
- Likelihood of Failure (LOF)
- LOF1, Material
- LOF2, Pipe Age
- LOF3, Proximity to Railroads
- LOF4, Intersection with Soils
- LOF5, Decision\_Tree, Capacity
- Risk
- \_Risk1, Symmetrical Risk for Gravity Mains
- \_Risk2, LOF Based

Inspections Defects Continuous Draft Rehab Final Rehab

14 (Electro\_Scan\_Ir)

1. IDs	
OBJECT ID	14
Inspection ID	14
Source ID	jen020217_165754PM_web_1_00000001
from id	C05-169
to id	C05-183

2. Inspection Details	
Date	1/20/2017 5:11 PM
Time	17:11
Direction	
Length Surveyed	414.63
Media Label	

3. Pipe Details	
Material	CIPP
Total Length	414.63

5. Reserved	
Pipe ID	131222
Pipe Object ID	647

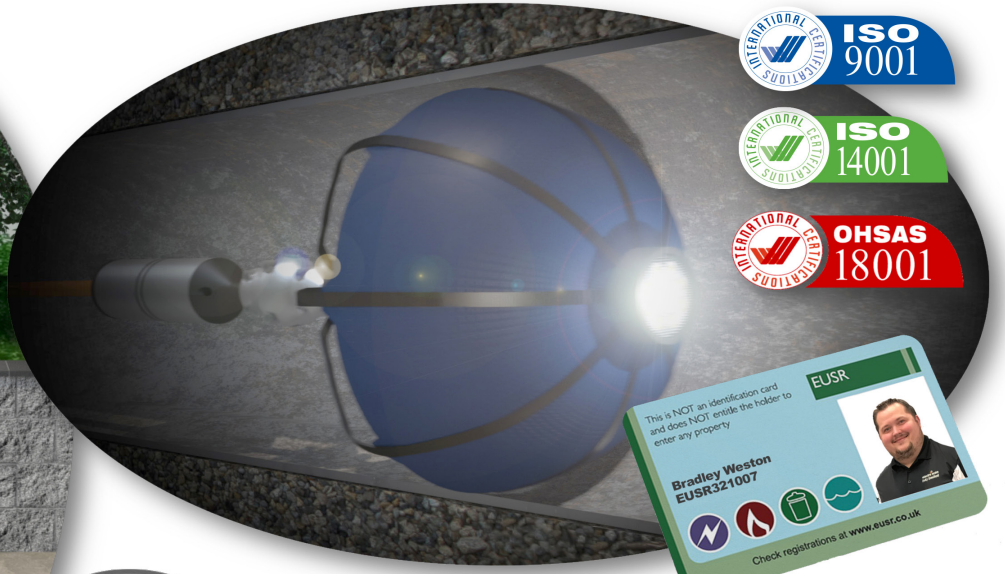
Other

- company id
- device mfg
- device model
- device serial number

webinar 1

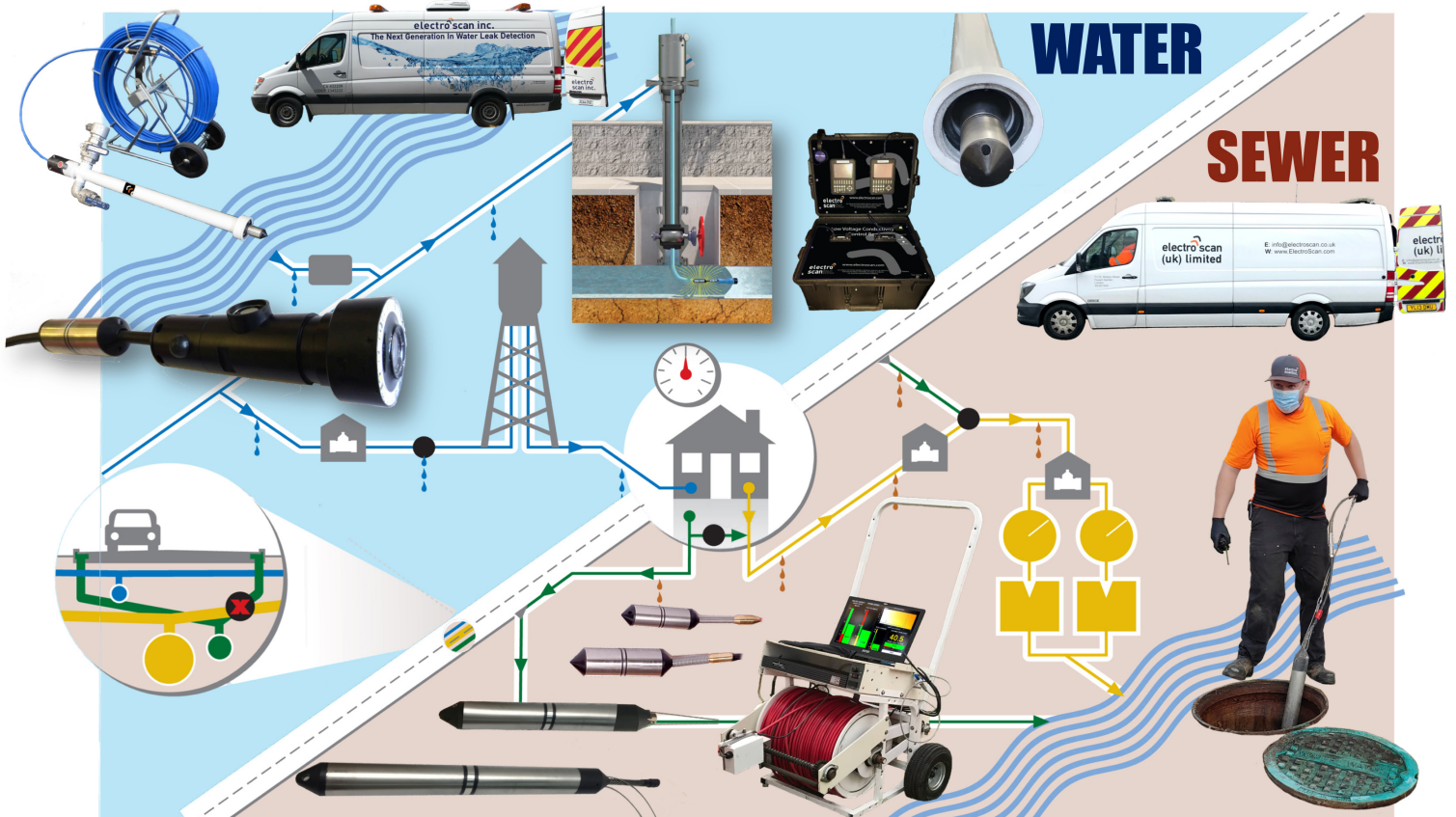
SLIDE #57

# ...UK Webinar.



**SSIP** SAFETY SCHEMES IN PROCUREMENT

SLIDE #64



SLIDE #56



# Team



## **Chuck Hansen, Founder & CEO.**

International pioneer in water & wastewater asset management & condition assessment. Multi-patent holder in pipe leak detection, with nearly 40-years of experience in water & sewer industry. Founded Enterprise Asset Management (EAM) company in 1983 and sold for \$100 million in 2007. Founded Electro Scan in 2011 and Electro Scan (UK) Limited in 2014. Former Chair, ASTM F36.20, Inspection & Renewal Water & Wastewater Infrastructure.



## **Carissa Boudwin, VP, Chief Revenue Officer.**

In charge of corporate wide Technology as a Service (TaaS) and Software as a Service (SaaS) licensing. B.S. George Mason University. Over 5 years with the Company managing data reporting, sales quotes & proposals, technology licensing, and revenue recognition.



## **Michael Condran, PE, VP, Chief Engineering Officer.**

Responsible for engineered quality assurance, quality control, decision support, and reporting, with 25-years of experience with major global engineering firms. Condran is a member of the AWWA Water Distribution Condition Assessment Committee. Licensed PE in Colorado, Florida, North Carolina, and Washington.



## **Mike App, VP, Chief Implementation Officer.**

Responsible for all Project Implementations and Deliverables, worldwide, with over 10-years of experience in Cured-In-Place Pipe (CIPP) and trenchless rehabilitation industry. App was also a key lead on development of the Company's Conductivity-based Pressurised Water Delta Probe.



## **Brad Weston, Director, Electro Scan (UK) Limited**

Responsible for UK and EU Water & Sewer Leak Detection Projects, with Master Certificate in Advanced Low Voltage Conductivity. Prior to working with Electro Scan, Weston worked for WRc doing over 1,000 water insertions.



# Accurate, Fast, Repeatable



**Field Data  
5-Minutes  
or Less.**



## LICENSING



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