



**Contact:**

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CEO and co-founder

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*The quality of water depends on  
the quality of data and how it is managed.*

*Process optimization of data collection,  
management and use around water,  
are our core competence.*

# Our products & services are based on an integrative vision of water management



Intelligent decision support  
for data acquisition strategies



Expert support in data management & mining



Water 4.0



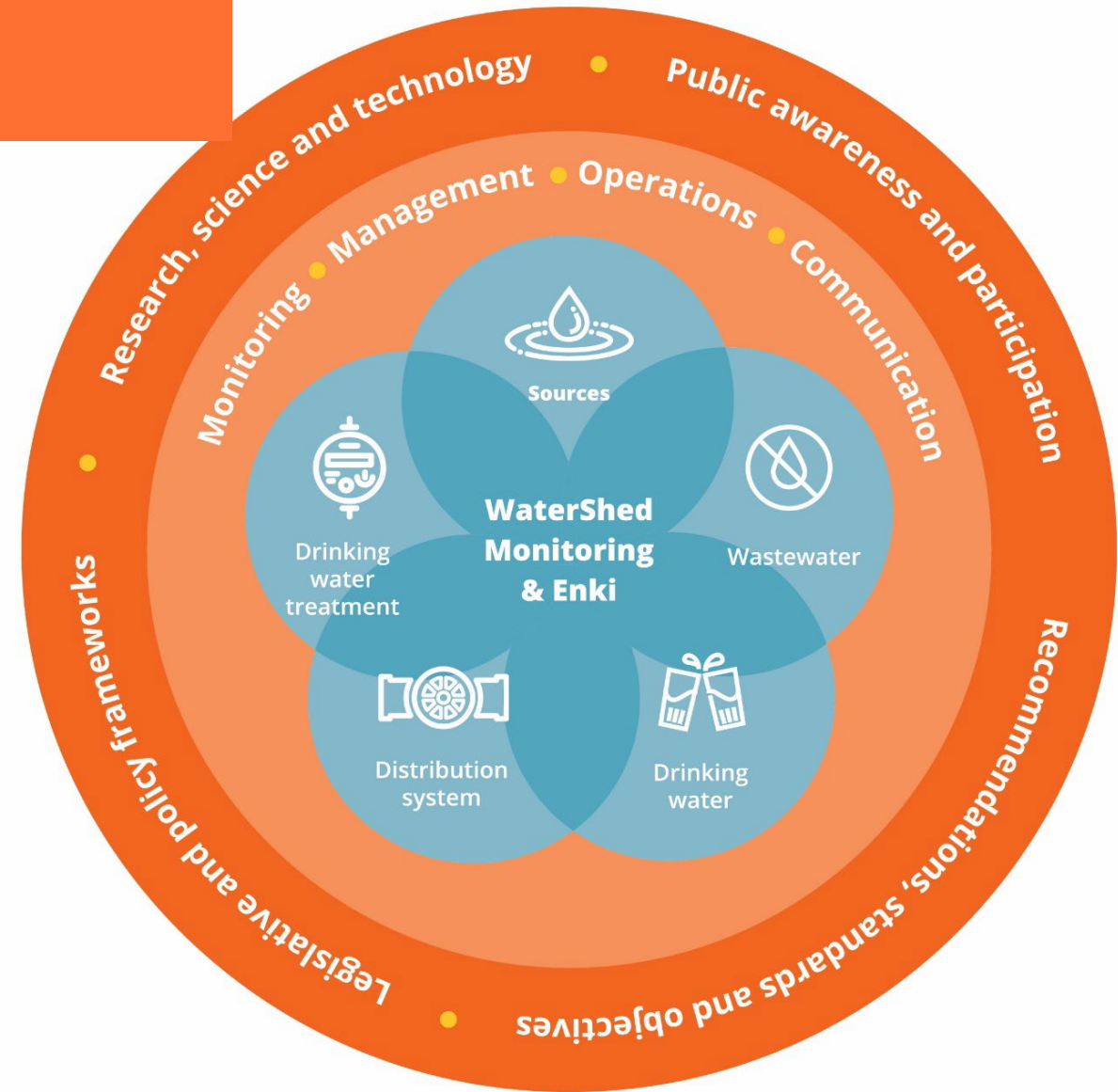
**Watershed**



**Vulnerability  
analysis**



**Distribution  
system**



# Clients & partners



*Two strategic locations:  
Canada & Europe*

*Universities*

*Watershed organizations*

*Public & private water providers*

*More than 60 cities in Canada*

*More than 300 users worldwide*

*A single place where the best minds from around the globe can meet and collaborate!*

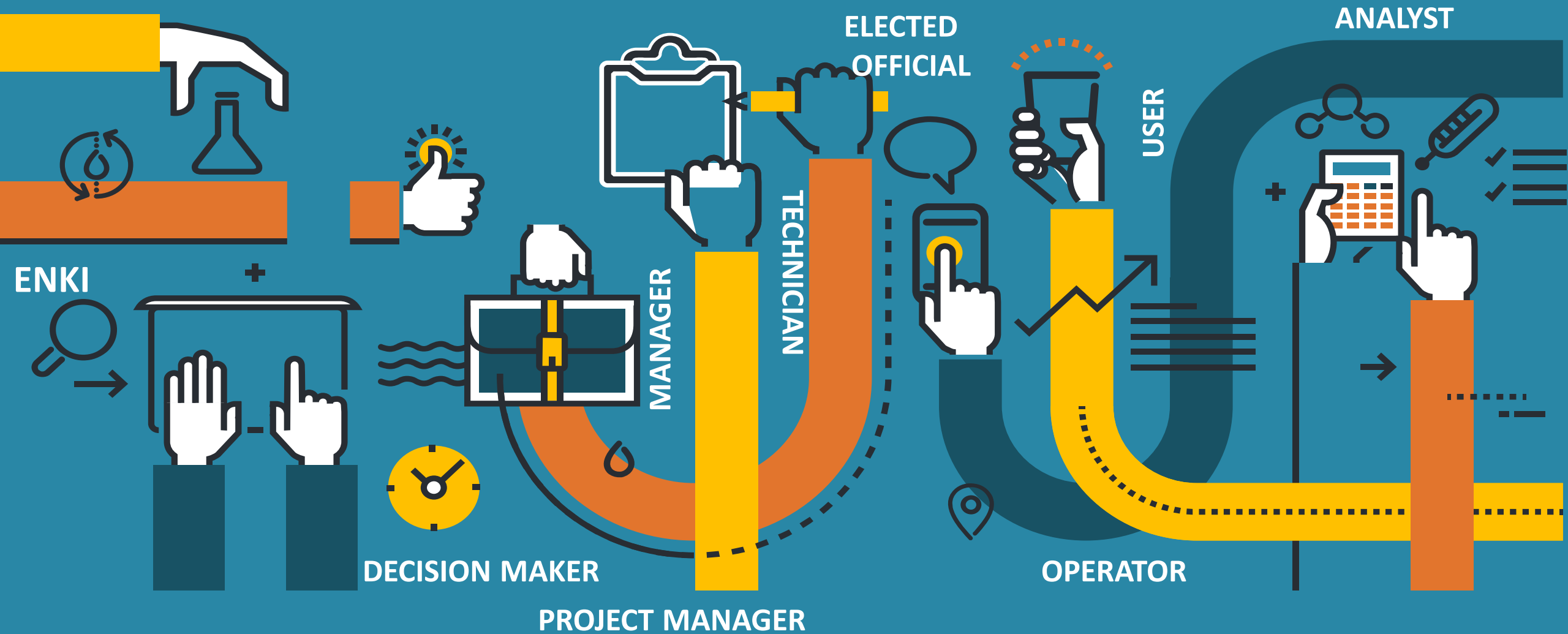
**Logos and text on the map:**

- longueuil
- VILLE DE QUÉBEC
- McMaster University
- Université de Montréal
- UNIVERSITÉ LAVAL
- LMU
- International R&D projects
- Strasbourg.eu eurométropole
- BASSIN D'ARCACHON SYNDICAT INTERCOMMUNAL
- SCALIAN
- CIMA+
- ATRAPP



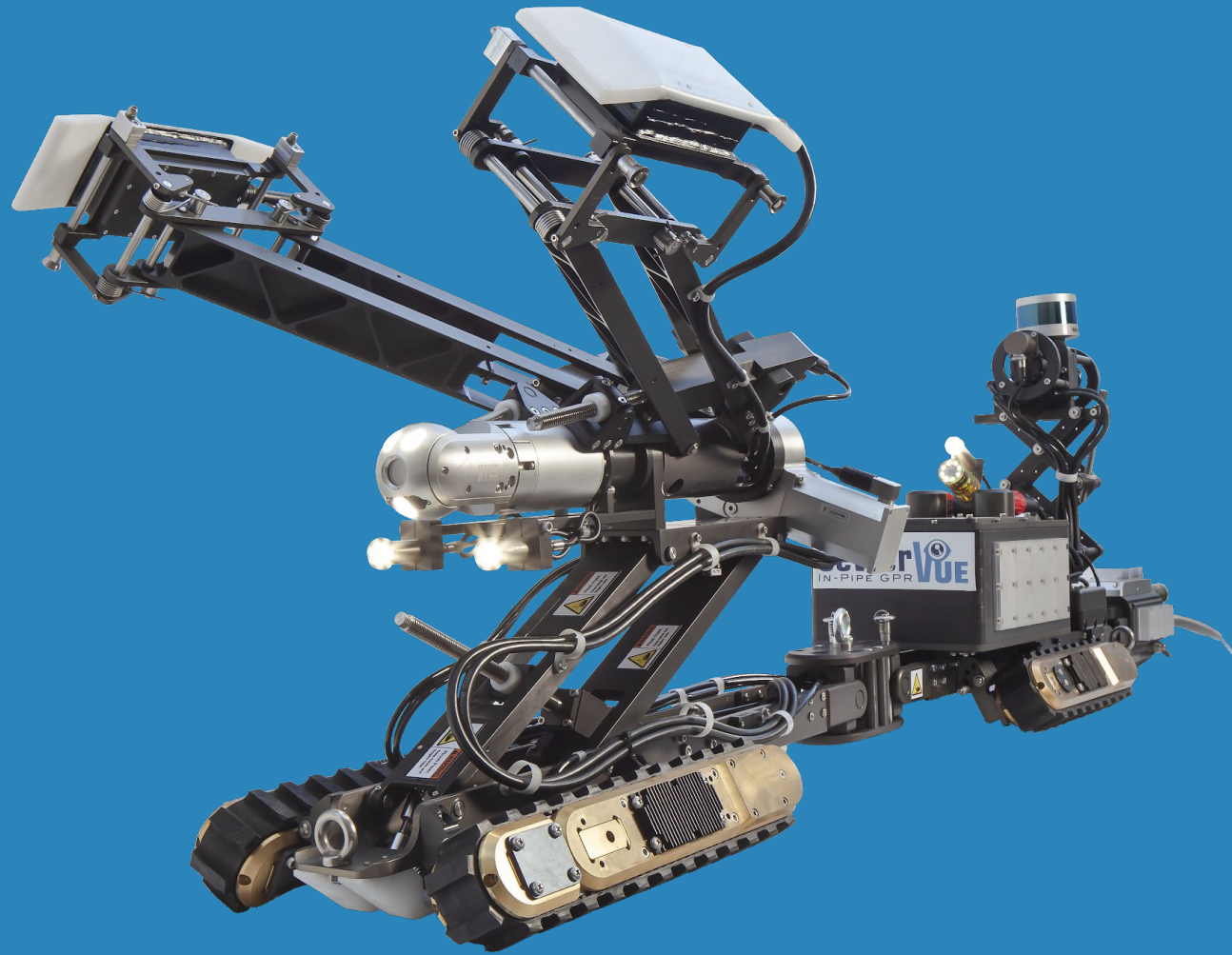


# Thank you - Time for discussion!



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# Advanced pipe condition assessment



A data driven approach to asset management





## Who is SewerVUE ?

A team of scientists and engineers that are experts in:

- completing “impossible inspections”
- developing new technology to assess pipelines
- democratizing advanced condition assessment through hardware sales & partnerships

Have serviced top engineering firms and forward thinking municipalities spanning the globe!

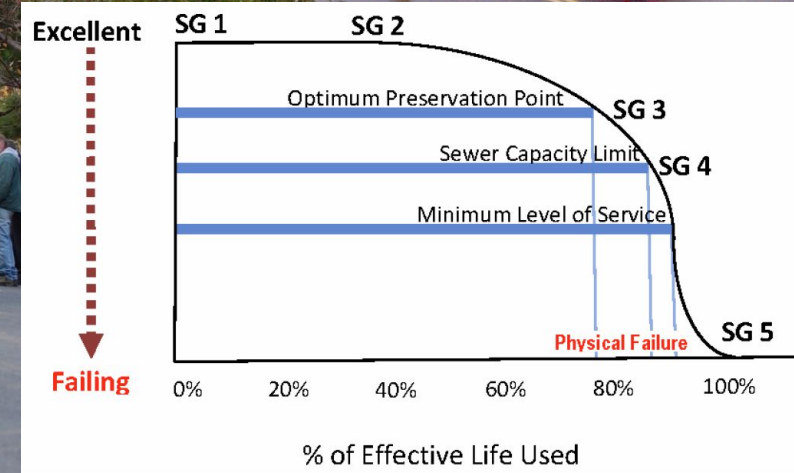
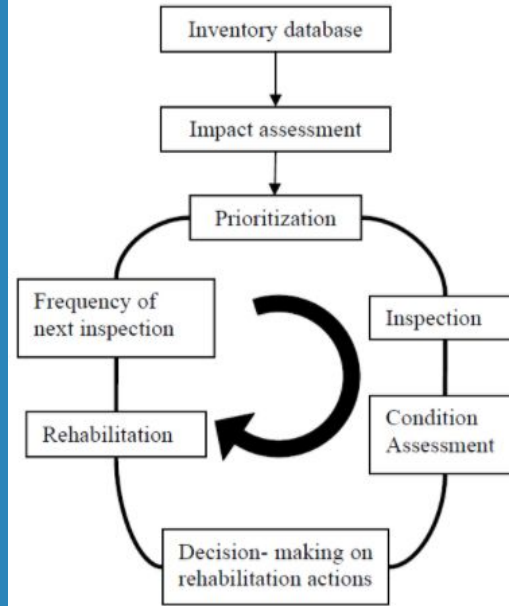






## Framing

- Pipe infrastructure is aging
- Infrastructure boom in the 60's
- Failures are on the rise
- Best practice is to use 25 year old technology
- Data science is changing the world
- Quality data in, quality decisions out



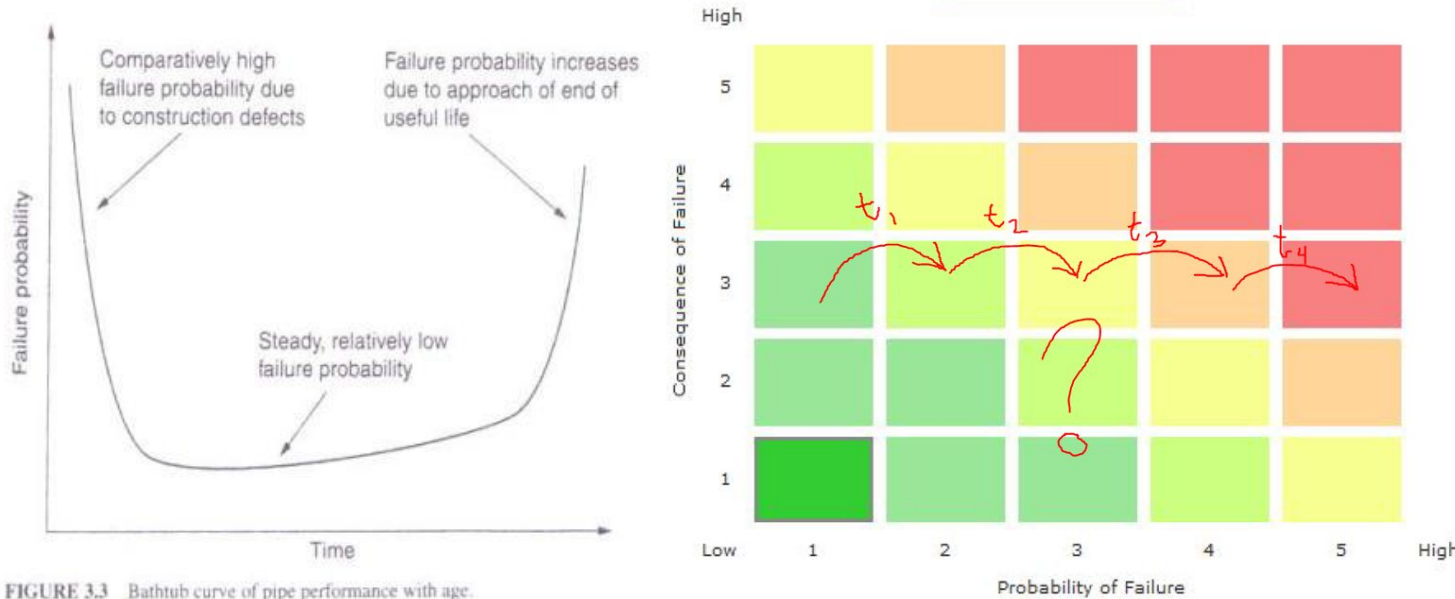




# Cost of Complacency

A look at a few case studies:

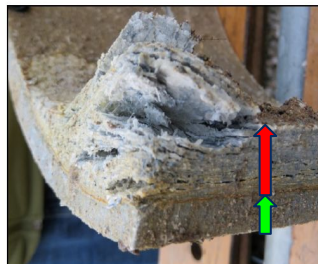
- Simi Valley, California (pop. 125k) found they saved \$4.5M annually through implementation of a PACP program (CCTV) (Null R.N., 2008)
- City of Waterloo, ON (pop. 113k) estimated a yearly \$2.5M loss if they keep using the reactive asset management practices. (Waterloo.ca, 2020)
- Video data has poor repeatability and limited use in predicting the remaining useful life of linear assets, but still provides significant value.
- With more quantitative technologies, we can improve model predictions, extend existing municipal budgets and improve safety!



Delaminated areas of AC pipe



Pockmarking



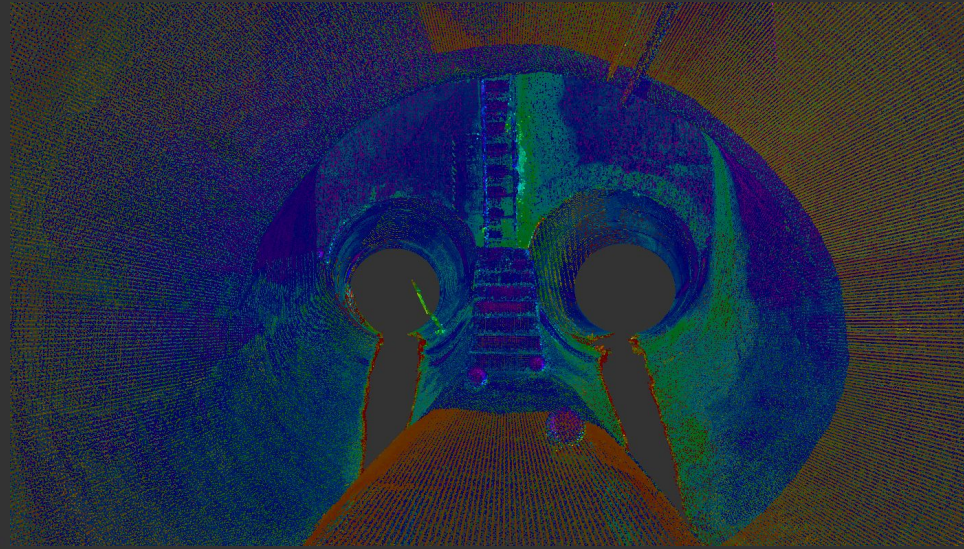
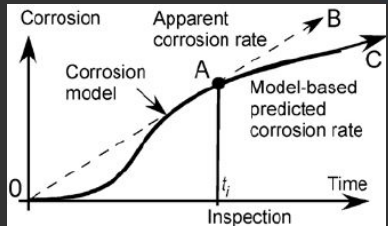
Delamination





# Quantitative Condition Assessment

- Take measurements - not pictures
- Model and predict RUL

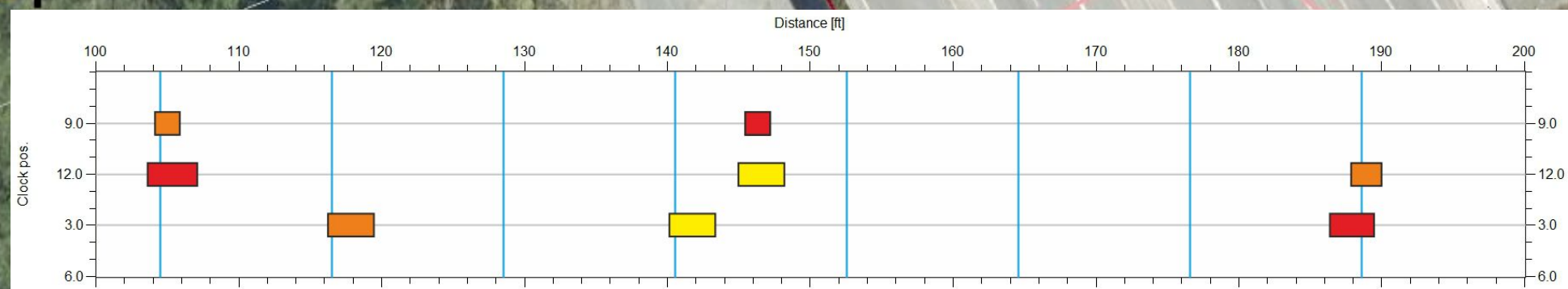
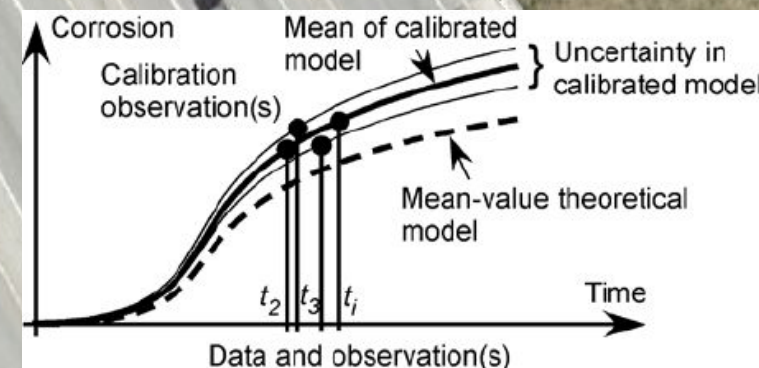
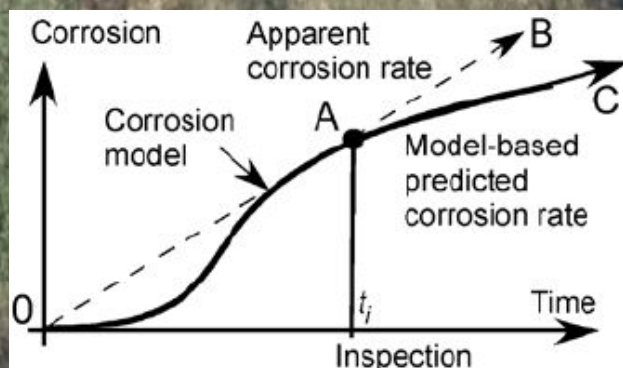
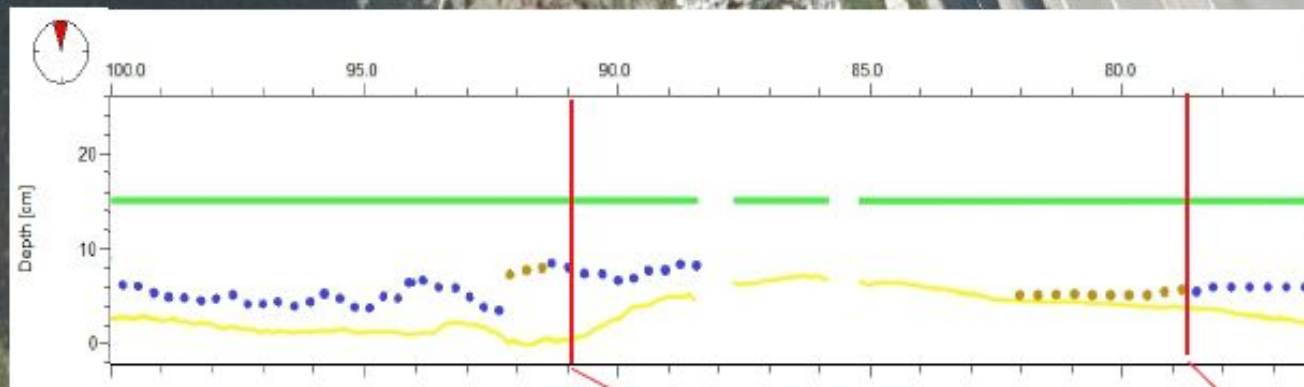


549.144 m

Example RCP: Wall thickness, time

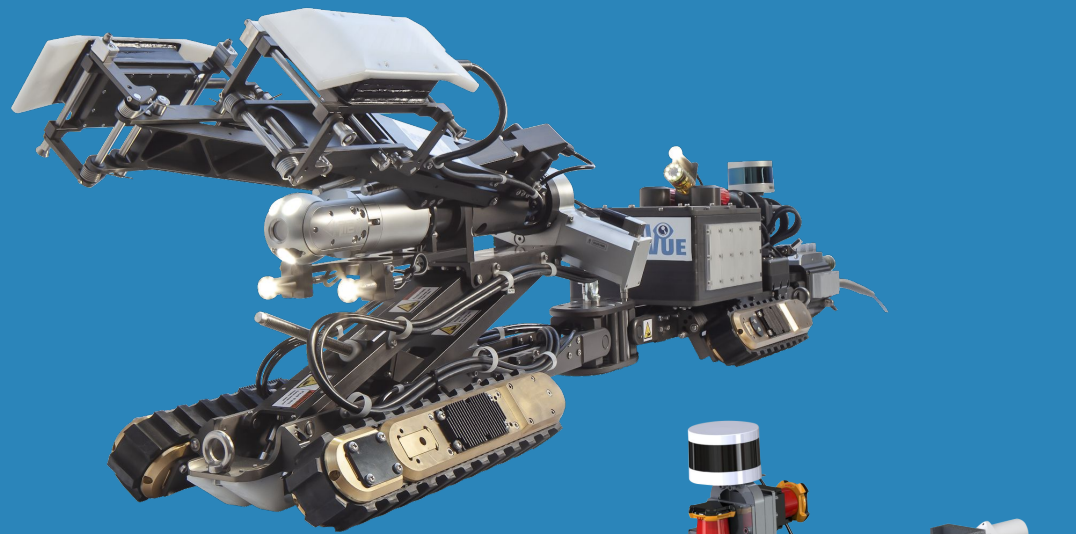
- 1) Create Digital Twin – LiDAR & Sonar  
(Measured ID) - (Reference) = Remaining Wall Thickness
- 2) Measure it directly - Pipe Penetrating Radar  
Time of flight measurement based off a reflection.





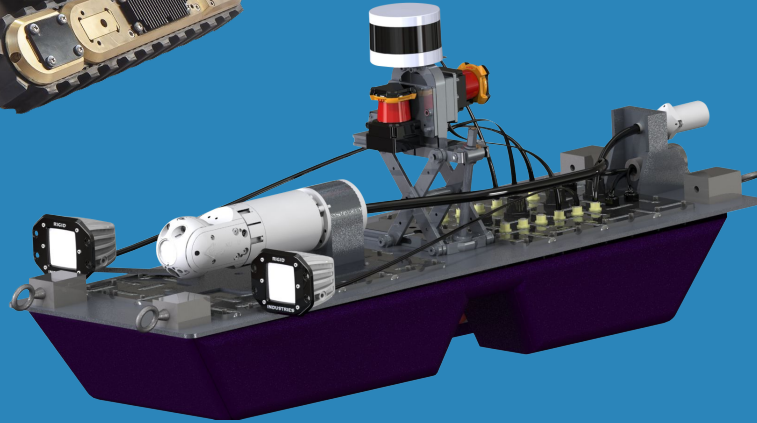
Access point:  
October 19th

Access point:  
September 15th



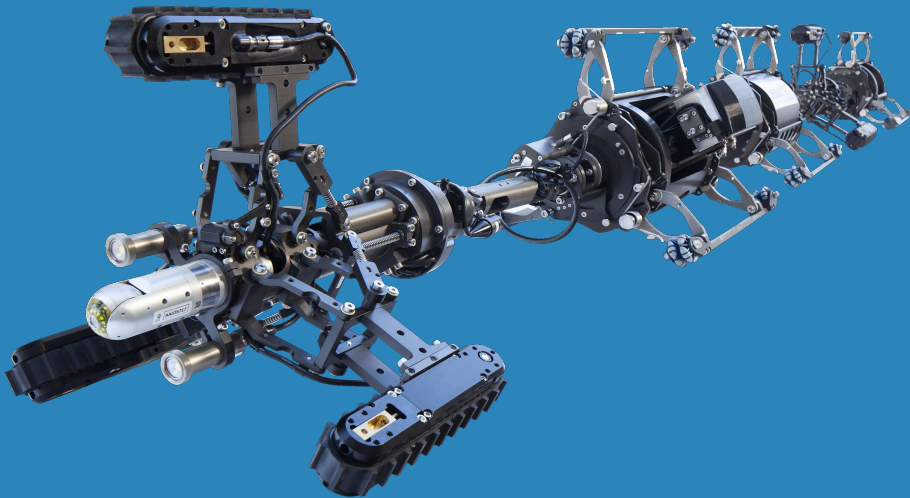
### 4th Generation Surveyor:

- 21-48 inch diameter, (525-1200 mm)
  - options to go larger upon request
- 3,300 ft (1 Km) tether (fiber options available)
- Dual PPR, LiDAR, Sonar, H2S, HD-CCTV, Geospatial localization
- Over 10,000,000 ft inspected



### MPIS Float:

- 18 inch and up!, (525+)
- 3,300 ft (1 Km) tether (tetherless options available)
- LiDAR, Sonar, H2S, HD-CCTV, Geospatial localization



### ACPS - Small Diameter Crawler:

- 10-18 inch, (525-1500 mm)
- 3,300 ft deployment standard (fiber options available)
- UHF PPR, HD-CCTV
- Over 100,000 ft inspected





# Questions & Contact

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