

curapipe



May 7th 2020 Webinar

Presentation by: Ben Shenkar - CEO

Curapipe for Trenchless Automated Leakage Repair (TALR)

CURAPIPE

can reduce water loss
in Urban potable water
distribution systems

by at least **75%***

***92% at work done in Italy (2019)**

**Speaking of
Water Loss?**

A fully developed technology (TRL 7)



5 Skilled and experienced PhDs innovators conceived the methodology

2007



Proof of concept funded by Office of Chief Scientist of Israel

2007-8



Co-developed solution with Thames Water in London

2010-11



Enabling Platform buildup: Accreditation, Methodology & Training, IP, Investment

2017-18



Commercializing in Israel, Italy, South Africa, The U.K. Other regions negotiated

2019

Over 70 Pipe sections have been successfully treated, Demonstrating annual leak reduction of over 250,000 m³

Our Team



Ben Shenkar
CEO
MBA



Peter Paz
Co-CEO
(product, IP,
regulatory)
MBA



Hanan Keller
Operations
Manager
MSc



Samuel Perstnev
Chief Scientist
PhD



Boris Natapov
Technologist
PhD

Q: Why is Innovation required?

Active Leakage Control

1. Annual Leak Detection Programme (300 sub-regions)
 - Leak Noise Loggers
 - Day Survey
 - Check for leaks 2-3 times a year especially in leak prone areas
 - Cover 10 – 20 km length of pipes / day
2. Leak Detection Network Monitoring and Alert System (40 Sites)

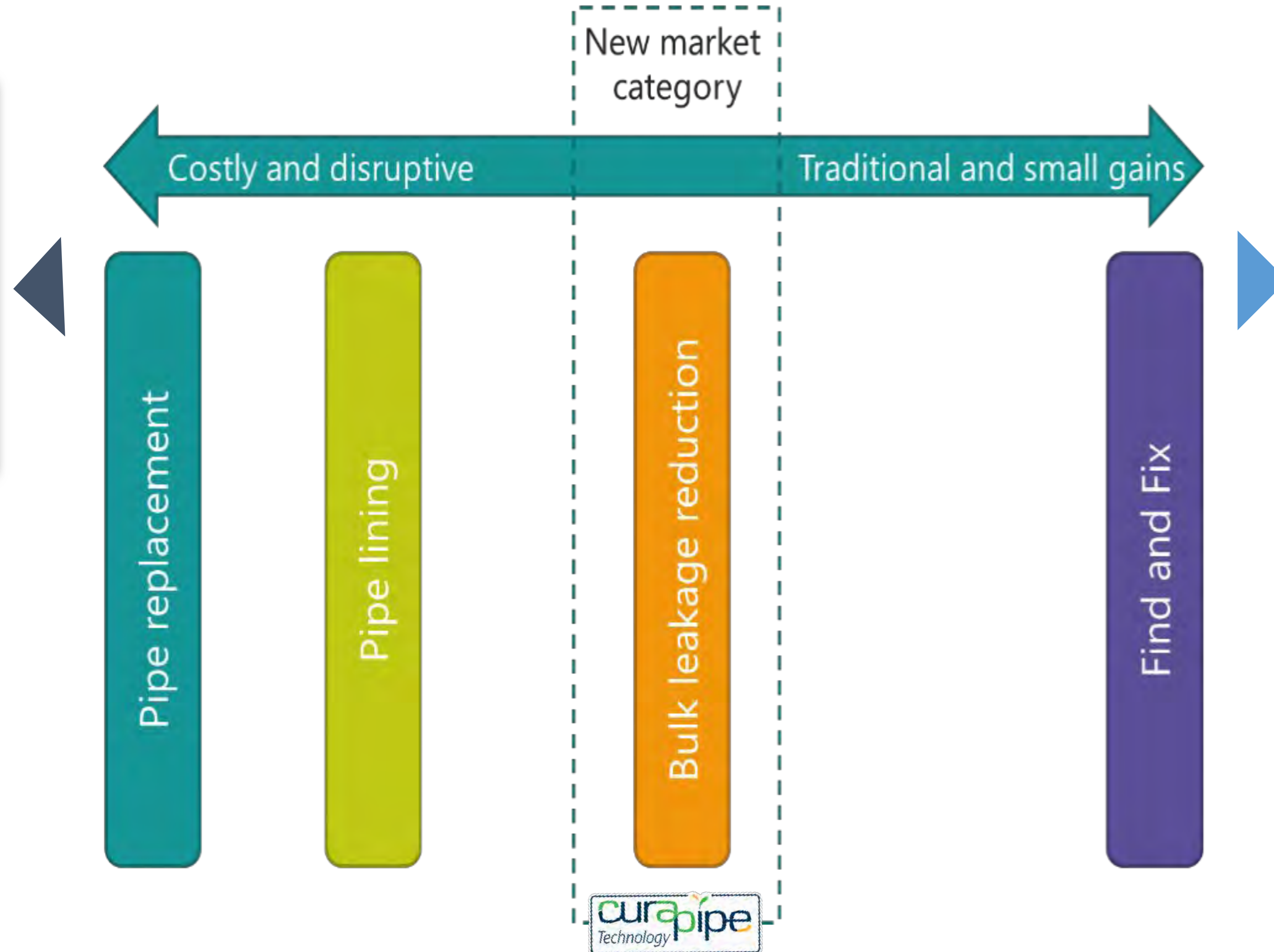


Q: Why is Innovation required?

A: To support Bulk Leakage Reduction (BLR)



**Pipe Replacement
or Pipe Lining**



Find-and-Fix

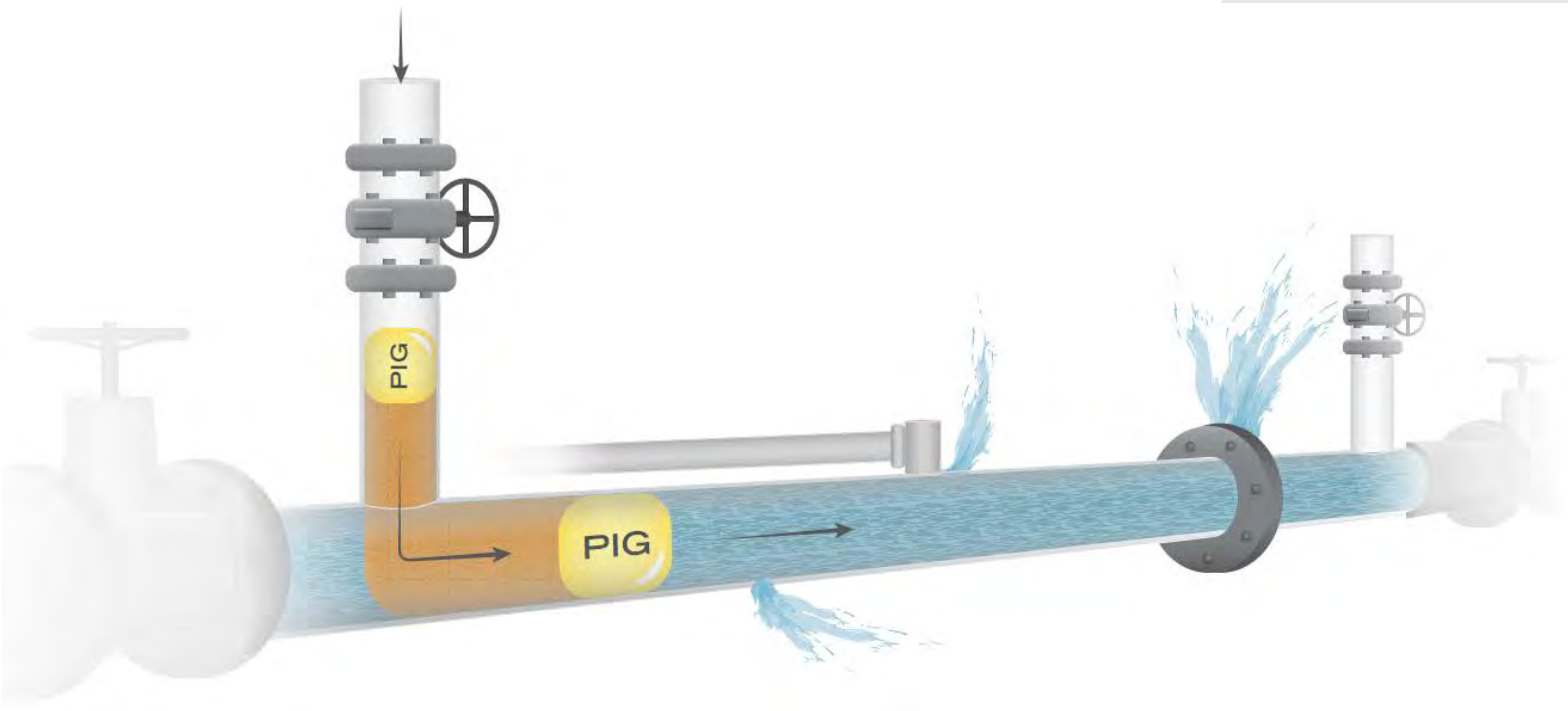


Repairing from within the pipe!

Trenchless Automated Leakage Repair (TALR)

“A game-changing low cost and durable trenchless repair solution for accelerated bulk reduction of leakage levels”

No direct competition/
similar product





TALR Video Clip

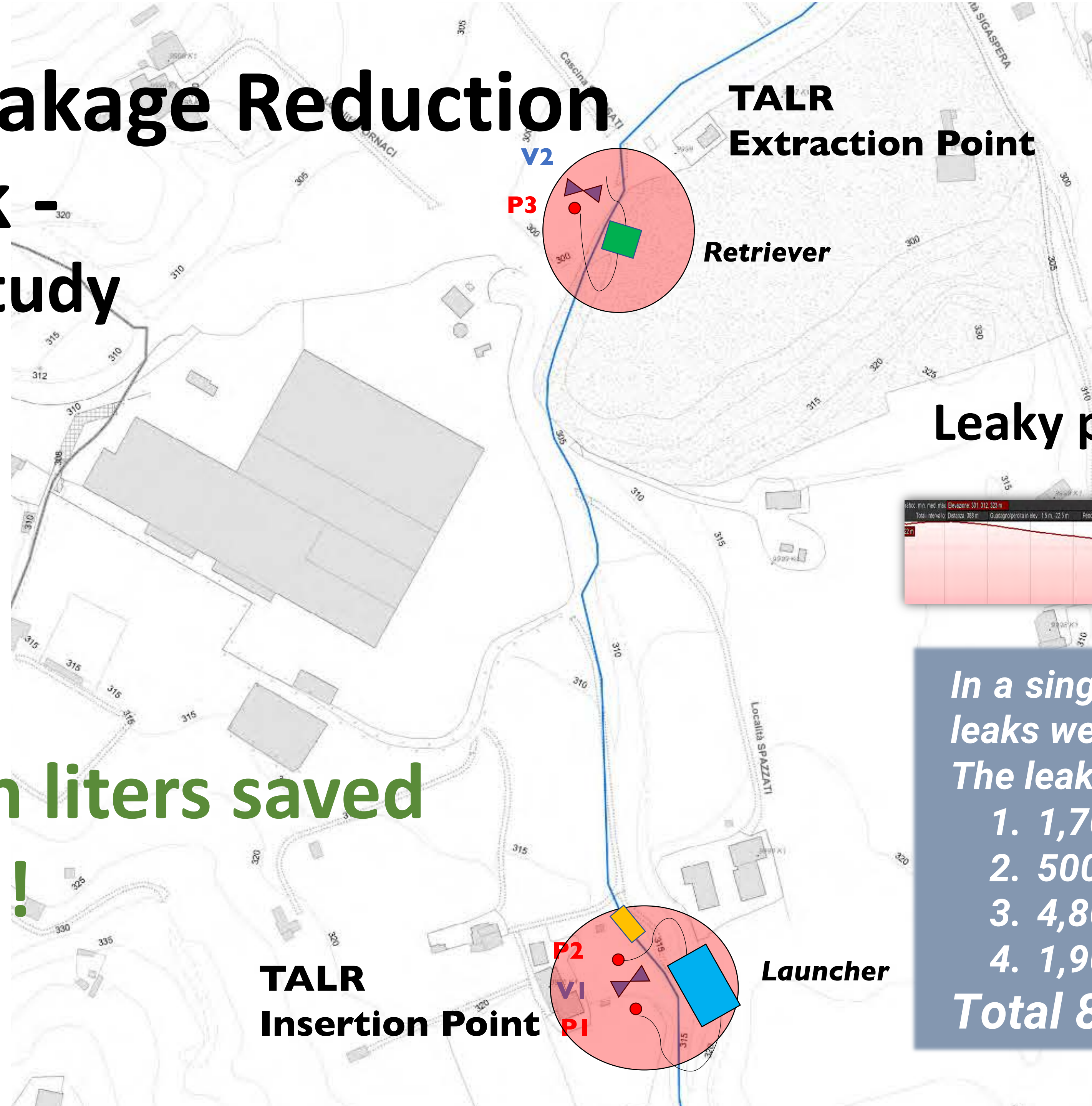
- First presents the general concept in animation form
- ...then shows how a live intervention operates in an above ground demo rig

<https://youtu.be/hUqBfhbWksw>

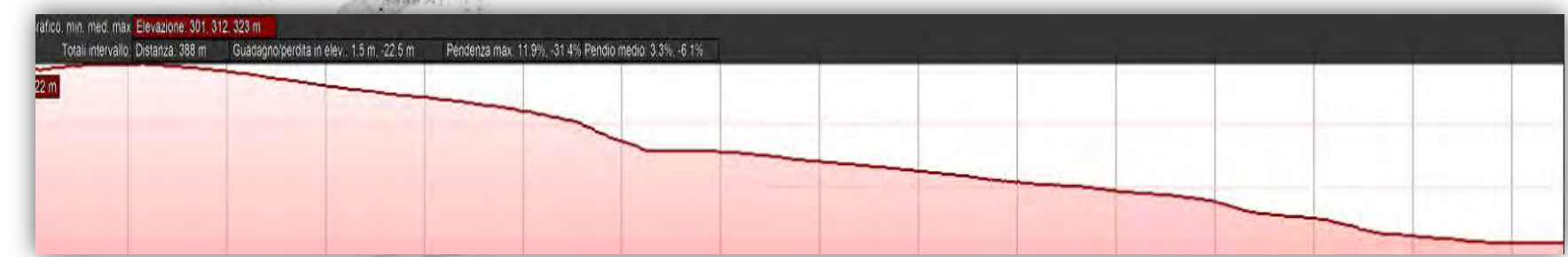
Bulk Leakage Reduction at work - A Case Study



**78 million liters saved
annually!!**



Leaky pipe in Breccia, Italy



*In a single intervention multiple
leaks were sealed.*

The leakage levels were:

1. 1,700 l/h
2. 500 l/h
3. 4,800 l/h
4. 1,900 l/h

Total 8,900 l/h Sealed

Results: Total Sealings!



Bulk Leakage Reduction

TOTAL SAVINGS:

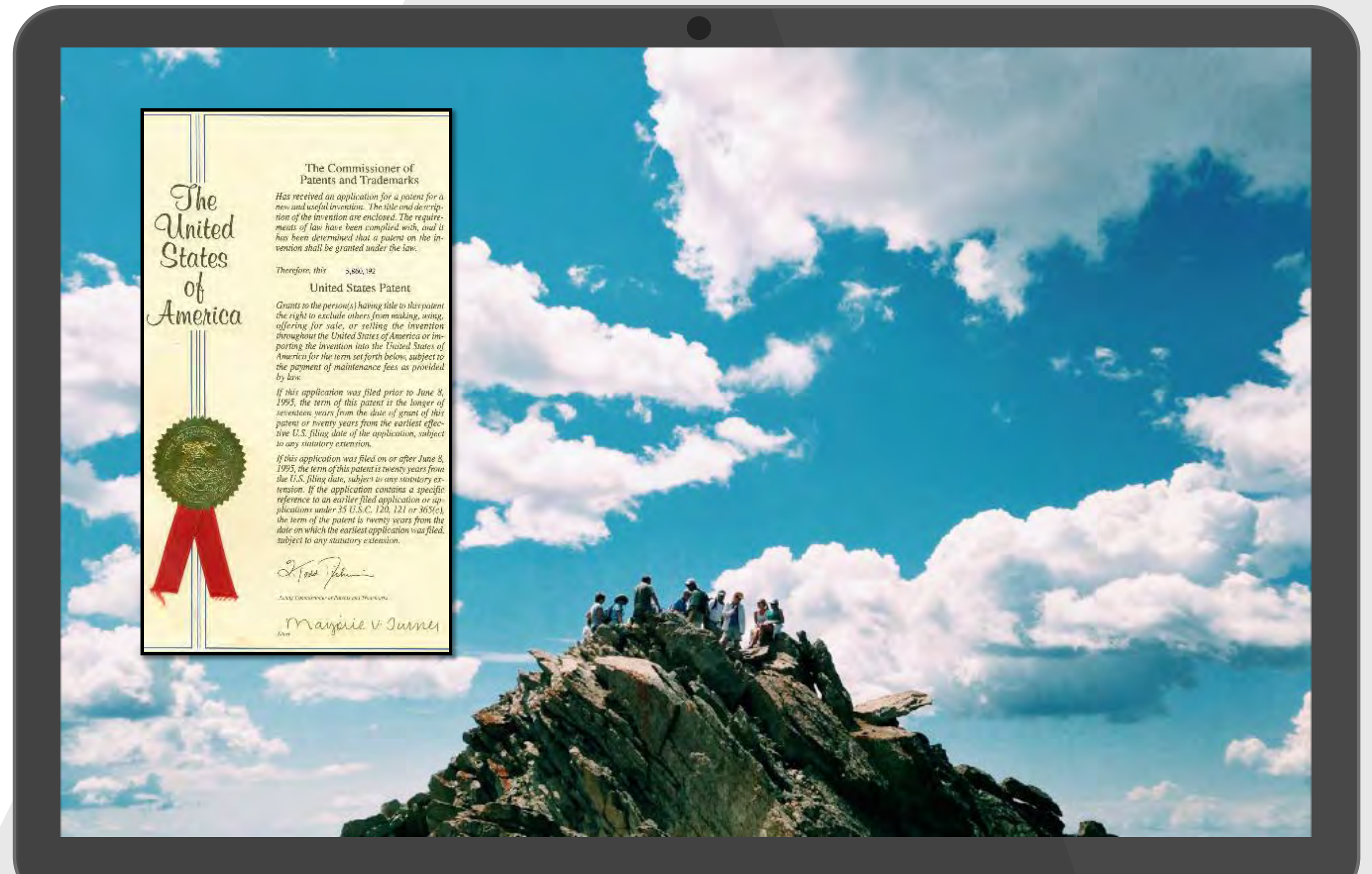
89.8 million litres-per-year or 0.25 MLD

Repair of a one kilometer (1 km) long cast iron water pipe leaking over 10 cubic-metres-per-hour

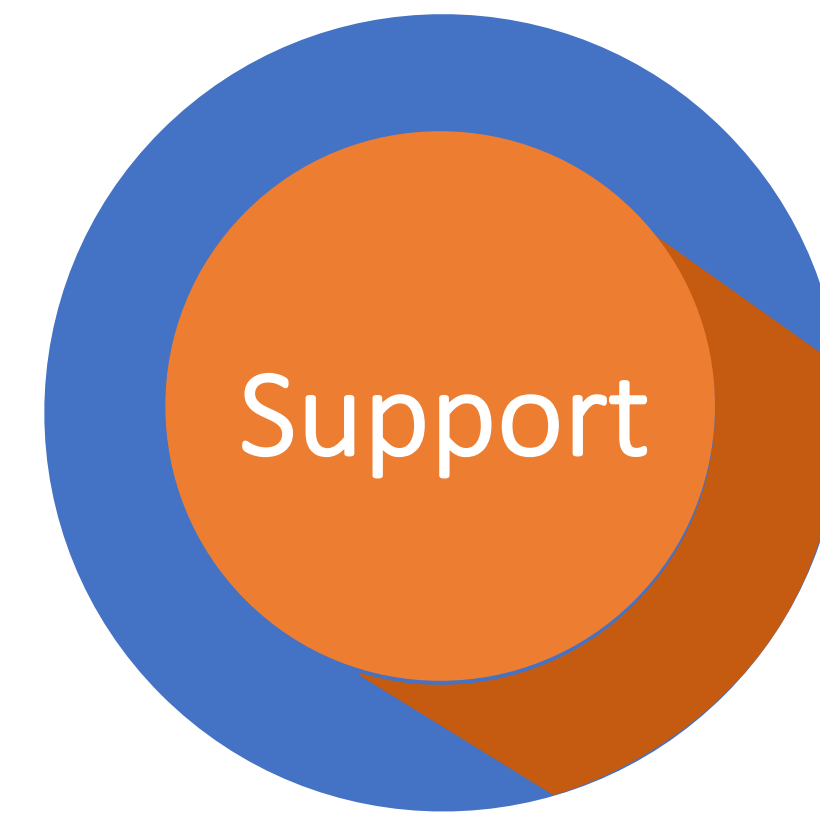
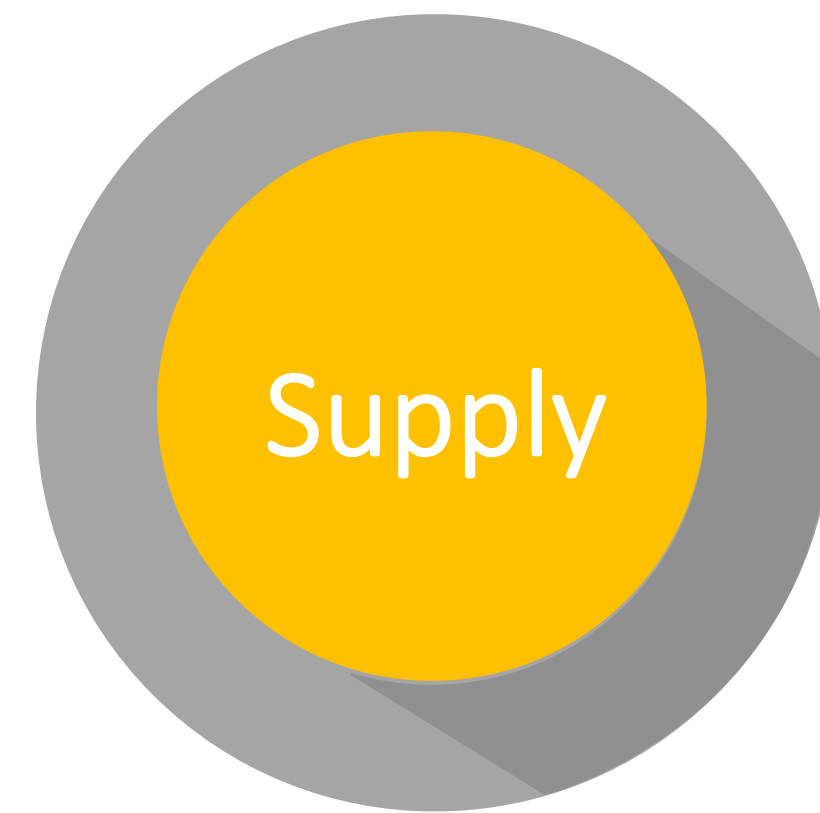
	Leakage level	Total savings per hour after TALR intervention (100% success rate)	Total savings per annum
Pipe Section 1 (DN 80)	8,900 litres-per-hour	8,900 litres-per-hour	78 million litres
Pipe Section 2 (DN 80)	150 litres-per-hour	150 litres-per-hour	1.3 million litres
Pipe Section 3 (DN 80)	1,200 litres-per-hour	1,200 litres-per-hour	10.5 million litres

Robust IP Assets

- To date 25 patents have been issued in various jurisdictions
- Additional 18 Patents are expected to be registered in the next 12 months
- The patent portfolio includes filings in 19 countries
- Pending patents for a home solution



Business model



- License the product to a local partner in each country against a **onetime license fee**
- Licensee provides the service to water utilities

- Train the licensee to apply the intervention according to a detailed methodology

- Supply licensee with equipment and materials
- **Materials are 90% of total revenues**

- Provision of ongoing frontline and backline support
- Field technician support services

Traction – Proving the Commercial Potential



- **Italian** licensee as of 2017
- Fully certified
- Successful pilots with many utilities (A2A, AQP, Cap Holding, Acqualatina, Veritas,..)
- Excellent potential going forward
- 2019 commercial 3.7km
- 2020 commercial forecast is over 20km



- **UK and Irish** licensee as of 2018
- Full certification underway
- Planned pilots with major water companies Anglian Water, Severn Trent, United Utilities, South Staff



- **South African** licensee as of 2017
- Fully certified
- Successful pilots in East London, Ladysmith, Emalahleni
- 2020 commercial forecast is over 5km

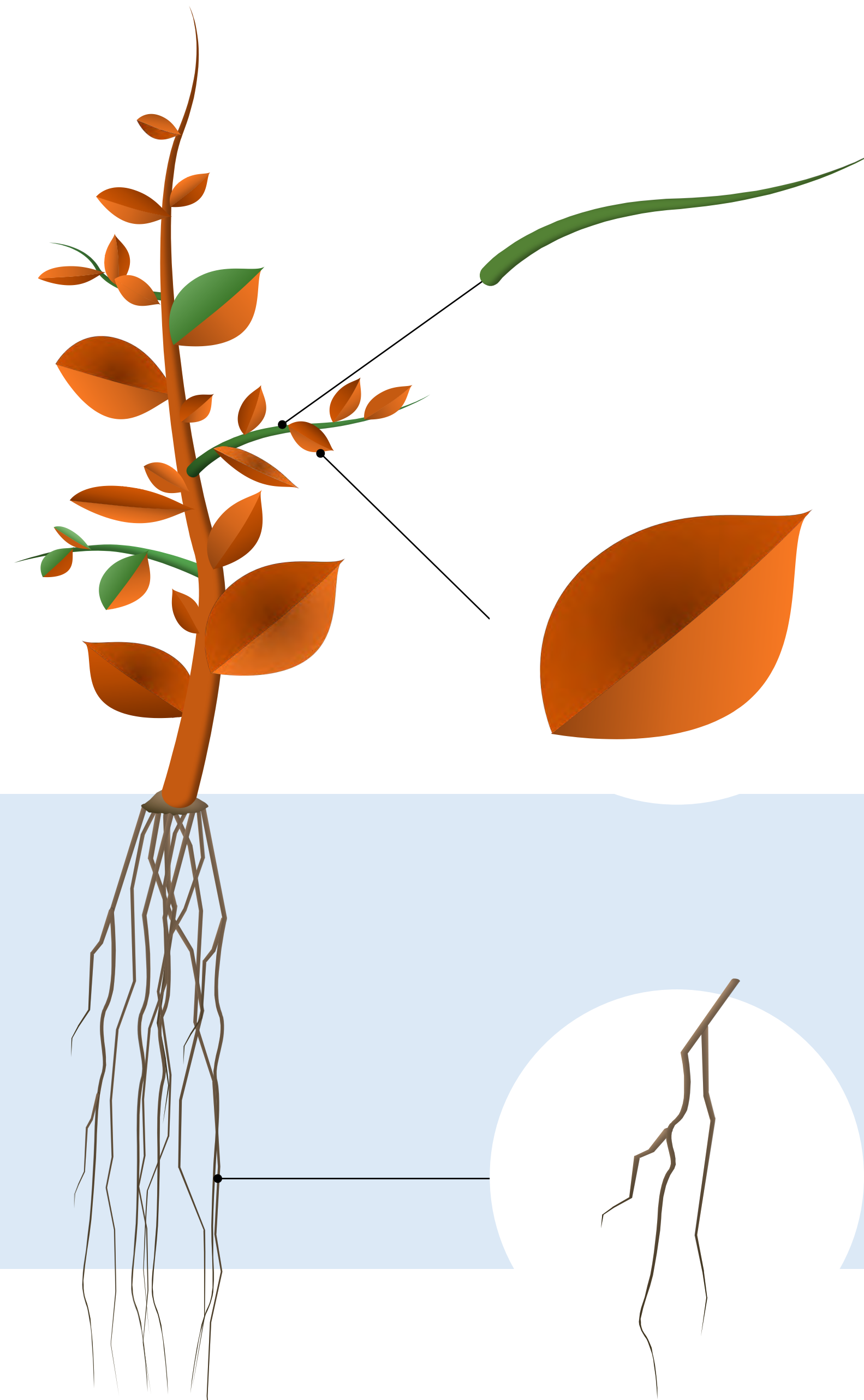


- **Israeli** licensee as of 2019
- Fully certified
- Successful pilots in Rosh Pina, Beer Yaakov
- Additional successful pilots done by Curapipe's team in Jerusalem Water

Business model supports accelerated growth

Three drivers of growth:

- 1st - enlarge licensee base (many roots)
- 2nd - number of projects per licensee (many branches)
- 3rd - project growth (many leaves on each branch)



2nd # of W. Utilities

Branches on the plant

3rd project growth

Leaves on the branches

1st licensee base

Roots of the plant

Advantages of TALR

Seals and cures all types of leaks and pipe materials



Extends assets life - as cure is tested for 10 years longevity



No need to locate or excavate leaks

Multiple leaks can be sealed on 400 meters of the main pipe and laterals - in a single intervention

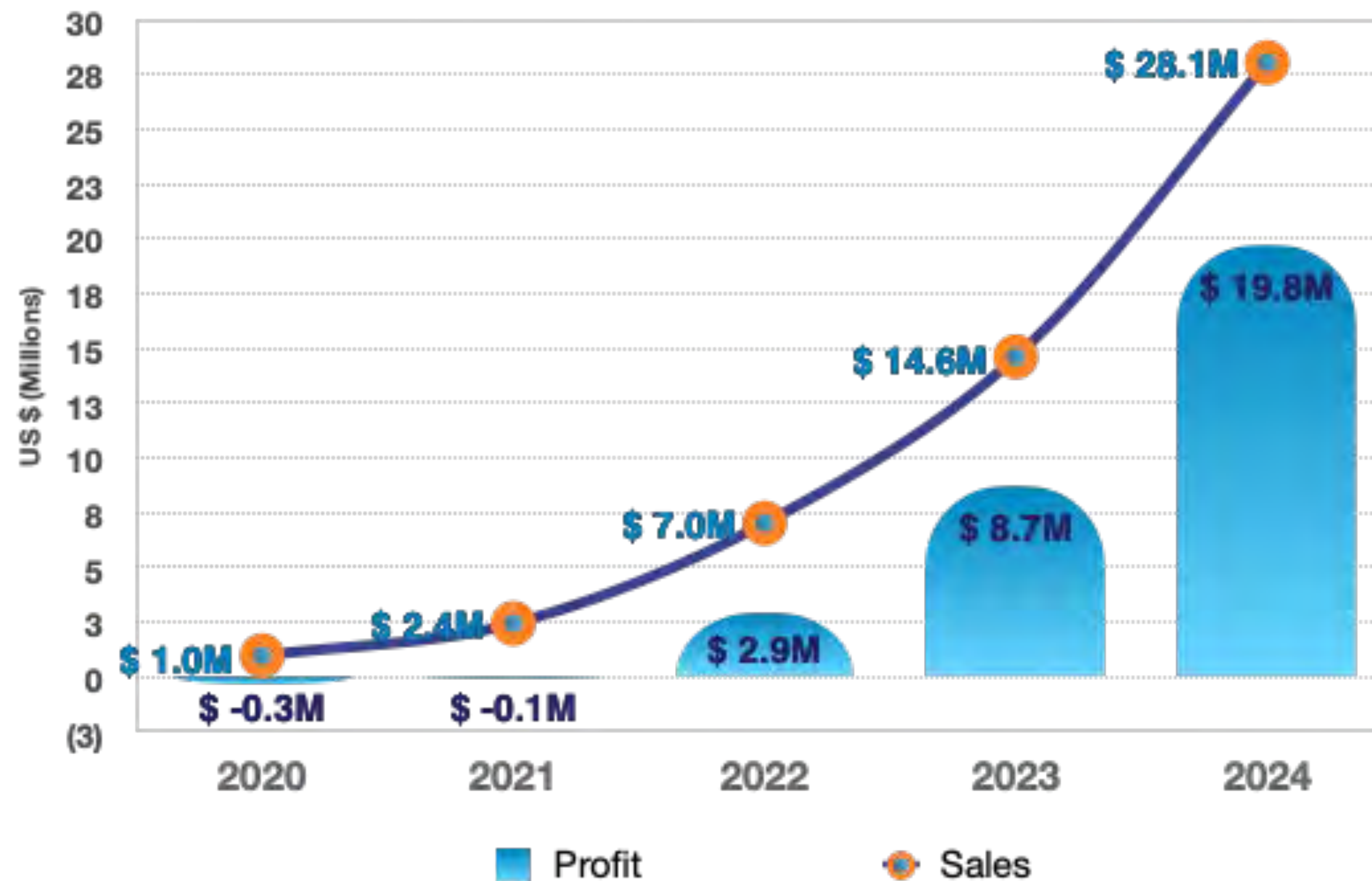


Accredited for potable water use in selected markets

Financial Forecast

Revenue and Net Profit

- Forecasted revenues will amount to US\$3.4m over the next 24 months.
- Forecasted growth in combined core and new market sales represent a strong CAGR of 133% through 2024.
- Operating breakeven occurs within 24 months of closing of investment round.
- Net profit margin is forecasted at 40% for 2022 and expected to grow steadily to above 70% by 2024, due to the favorable fundamentals of the businesses.



Once high volumes are achieved the business model offers high returns based on excellent margins of proprietary material sales

Proposed Investment Round C

\$3m

Minimum round

\$5m

Maximum round

External Investors:

\$2.50m

External Investors:

\$4.50m

Use of Proceeds

- Transition from pilot projects to commercial sales
- IP
- Potential set up of a business unit for a Premise Plumbing offering





Securing Water – Securing Life!