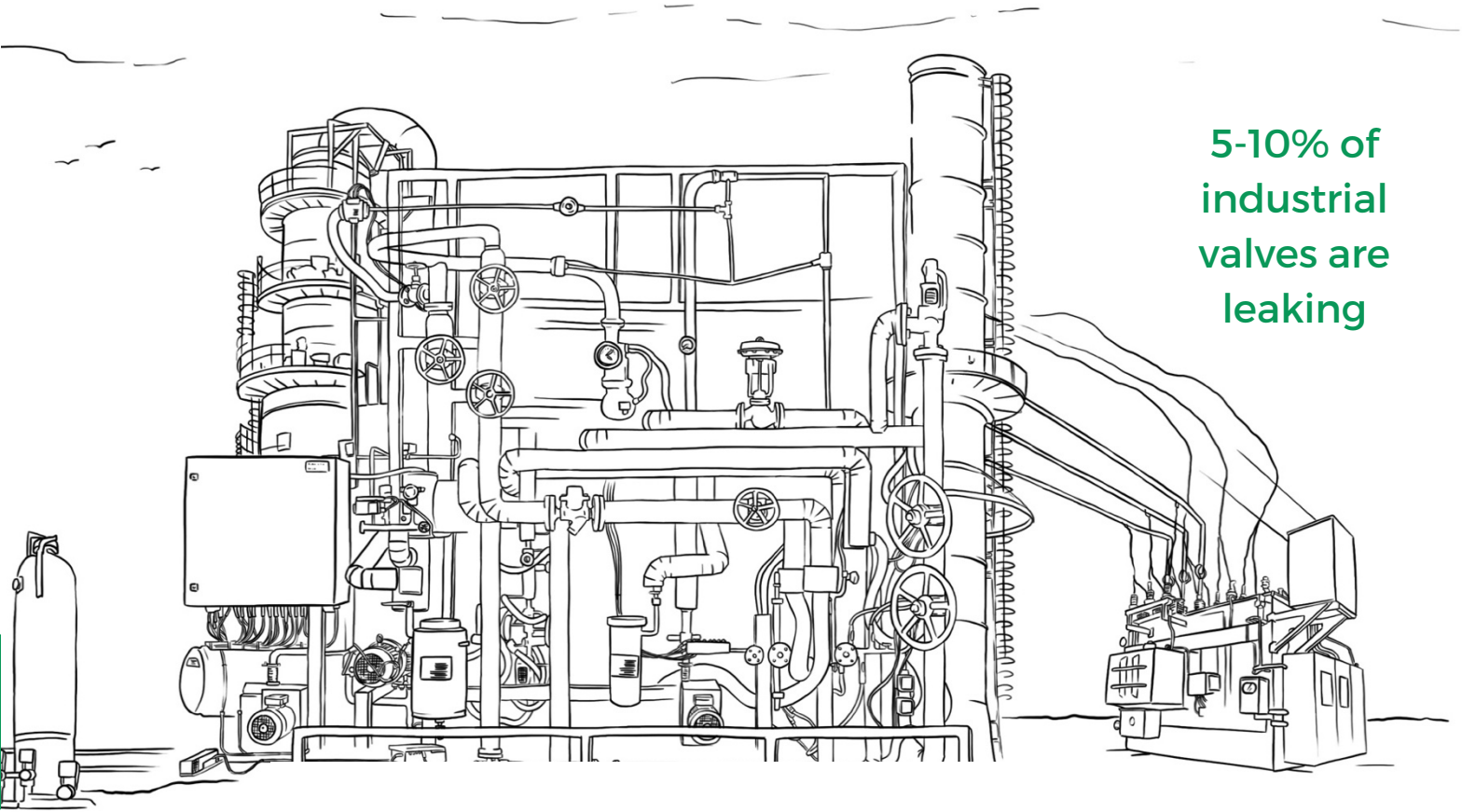
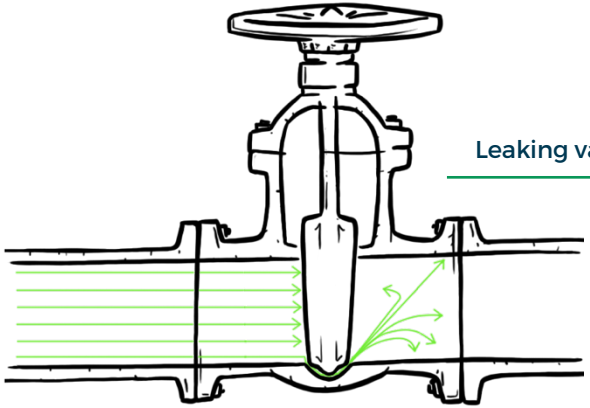
# VALVE SENSE INSPECTION

## FAST AND EASY LEAK DETECTION IN VALVES


i.safe MOBILE | SENSEVEN




## START PROTECTING YOUR ASSETS TODAY



Leaking valve

# THE PROBLEM

**Leaking valves in industry can lead to:**

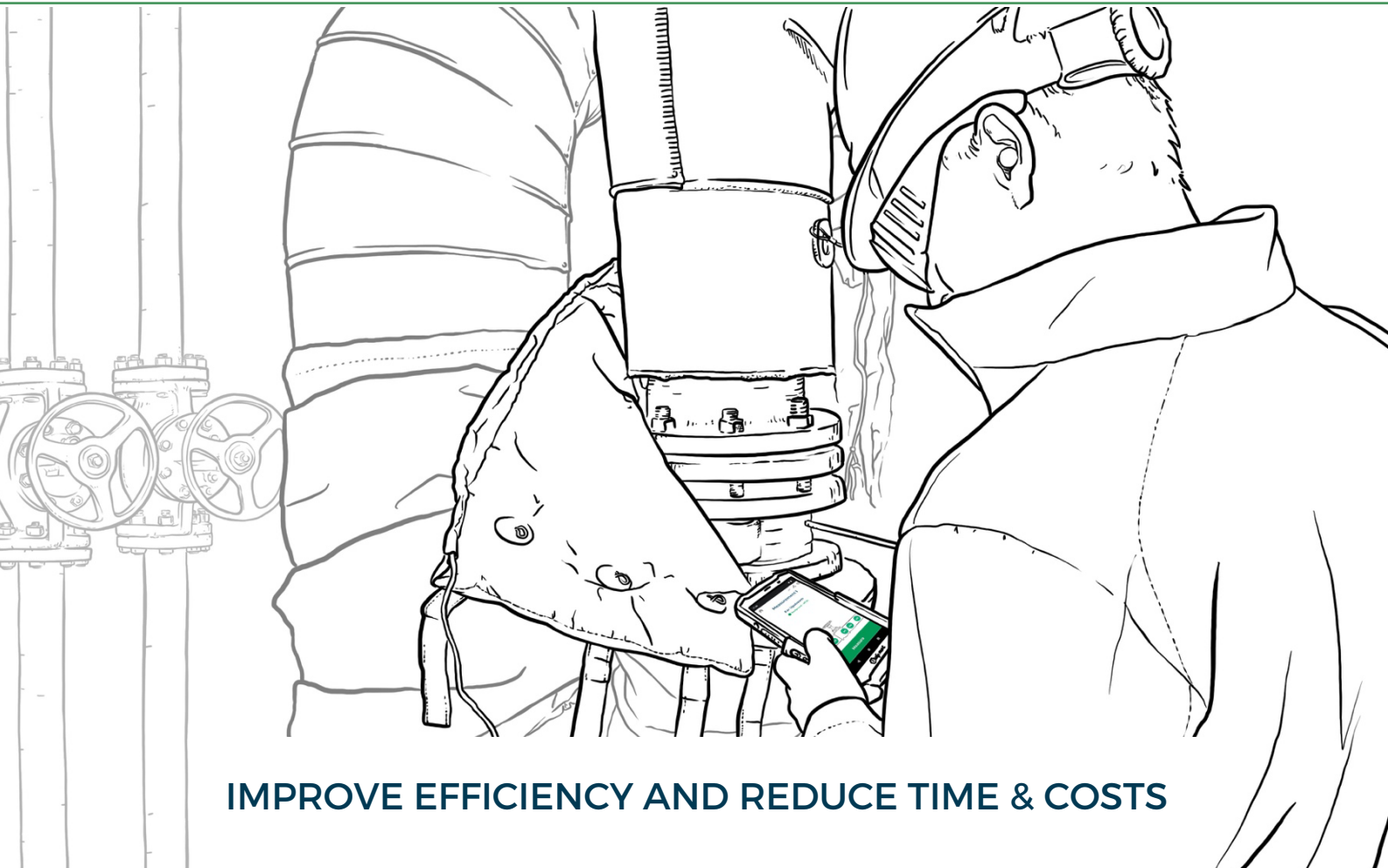
- **Losses** (energy, steam, pressurized air, scrap, product)
- **Risk of injury**
- **Contamination**

Currently valves are mostly removed and tested on a test bench → This is time consuming and causes downtime.


VALVES ARE THEREFORE RARELY INSPECTED AND
LEAKS REMAIN UNNOTICED FOR A LONG TIME

# OUR SOLUTION

- A smart and mobile inspection system for leak detection in valves
- Inspect valves while process is in operation
- Automated results immediately on site
- All inspection data is structurally stored in a platform



## IMPROVE EFFICIENCY AND REDUCE TIME & COSTS

# VALVE SENSE:

# EASY VALVE LEAK DETECTION


Valve Sense

## Acoustic emission meets digitalization

AE sensors are connected with i.safe MOBILE's IS540.RG smartphone for industrial applications. Equipped with the Senseven App and supported by artificial intelligence

## No expert knowledge necessary due to automatic leak detection

Software-guided inspection process with immediate results on site thanks to algorithms and AI


All data structurally stored


Software-guided inspection process

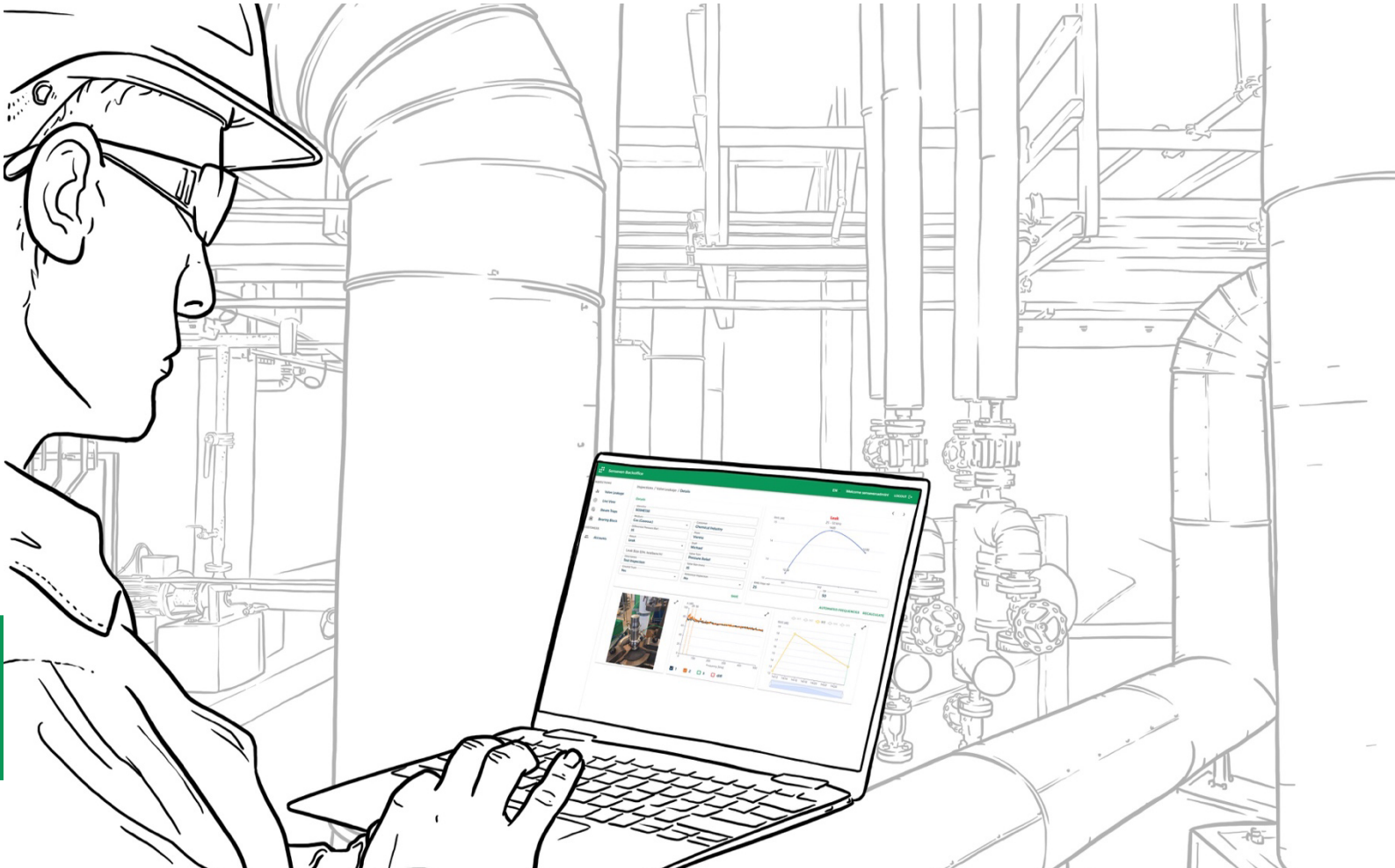
## Automatic data synchronization

All inspection data is automatically stored in our cloud platform for further analysis and easy reporting

# SENSEVEN BACKOFFICE:

Your structured web platform for all inspection data

- Data is automatically synchronized
- Analyze results in detail
- Look at trends over time
- Upload pictures
- Add comments
- Auto-generate reports



# A CASE STUDY:

## The situation:

- Energy producer uses steam in power generation process
- Valves need to function properly to avoid steam leakages and ensure boiler efficiency

## Inspection with Valve Sense:

- 15 valves have been inspected
- 1 valve which was expected to be leaking was actually tight
- 2 leaking valves were detected
- Estimated loss: up to EUR 30,000 / year

# ELEVATE YOUR VALVE RELIABILITY WITH VALVE SENSE

# TECHNICAL SPECIFICATIONS

## Measuring Electronic: Model MVS1A01

| | |
|---|---|
| **Analog band width** | 20-500kHz |
| **Input range** | 90 dBAE / 100 dBAE |
| **Sampling rate** | Res.: 2 MHz / 16 bit |
| **Power consumption** | < 700 mW |
| **Dimension** | Size: 141.2 x 96.0 x 51,85 mm<br>weight: 219.3 g |
| **Operating temperature** | Usable from -20˚C to +55˚C |

## Sensors: IS-SU150F1.1 and IS-SU150F2.1

| | |
|---|---|
| **Frequency range** | 100-450 kHz |
| **Operating temperature** | -40˚C - +120˚C |
| **Dimension** | 22.3 x 18.2 mm<br>22.3 x 37.5 mm |
| **Weight** | 29g<br>63.4g |

## Cable: IS-SC120BB1.1

| | |
|---|---|
| **Length** | 120 cm, 2 pcs/set |
| **Temperature range** | -20˚C - +60˚C |
| **Weight** | 20g (each) |

## Waveguide: IS-WGLF1.1

| | |
|---|---|
| **Diameter** | 55mm |
| **Temperature range** | >120˚C and < -50˚C |
| **Dimension** | 220 x 7 mm |
| **Weight** | 89.8g |

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