FIDO AI is the only data-as-a-service (DaaS) leak detection solution which identifies leaks and the size of leaks to hit your water losses hard.

FIDO AI
Automatically analyse any acoustic and kinetic file at scale to identify leaks, ranked by size, to more than 92% accuracy

FIDO Sweep
Drop multiple low-cost FIDO-enabled devices in areas without sensors to generate an overnight heatmap

Leak Central
Use FIDO data intelligence on leak history to spot trends and predict leaks before they happen

Our AI in more detail

FIDO's patented hybrid deep-learning multi-tiered algorithm analyses the vibrational frequencies and wave functions of any audio and kinetic file in eight distinct ways. First, it decides if the file it's analysing is a leak, then it calculates its likely size relative to a baseline.

Fully hardware agnostic, FIDO can work with data from any 3rd party sensor and can incorporate other available utility company data points such as flow, pressure and leak resolution information. FIDO is compliant with industry data sharing protocols because it processes and learns remotely.

Trained using a growing library of over 2.4 million leak and non-leak samples, the FIDO algorithm is over 700 times faster than humans at identifying real leaks. It has already surpassed 92% accuracy and is improving.
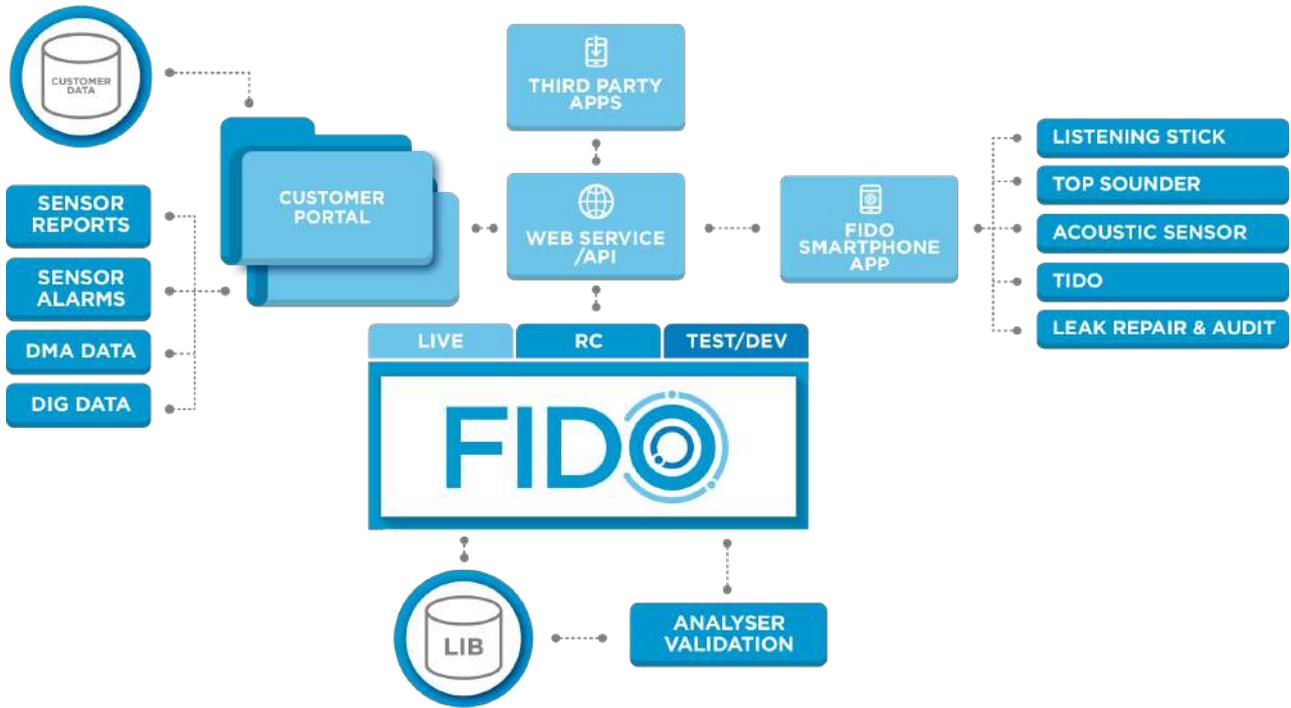
Over time, FIDO's algorithm evolves as new analytical functions are added in response to client demand. Leak-sizing is an example of this. As FIDO gathers and verifies relevant vibrational signatures with flow data, the accuracy and precision of the leak size results improves.

As well as generating reliable **points of interest,** used in conjunction with FIDO Bug hardware in the field, FIDO AI also generates exact **points of evidence** in the field. By applying specific waveform analysis to data from FIDO Bugs, FIDO AI can narrow leak location to a single defined point between FIDO Bug sensor locations, even for pipe sections made up of multiple materials.

FIDO AI can also be used for **proof of leak resolution,** and to generate leakage heat maps in areas without existing sensors. The FIDO DaaS platform needs no training and is available immediately with minimal deployment and upkeep. The software is wholly hosted and maintained by FIDO Tech Ltd.

Features

- Leak/no leak results to more than 92% accuracy
- Leak sizing
- Sensor agnostic
- Patented multi-path data analytics algorithm
- Easy to use cloud-based platform accessed via web
- Instantly analyses any audio or kinetic file
- Automated 3rd party data download

- 8 distinct machine-learning processes
- Unique library of 2.4m+ in-pipe and above ground leak signatures
- Live and operational 24/7
- Scripted post-processing available direct to WFM tools
- Fully scalable with instant deployment
- Monthly subscription

The diagram above shows how all the software and hardware components in the FIDO solution interact with each other and customer platforms.

FIDO's cloud-based algorithm is at the heart of it all. Audio and kinetic files from any client asset such as sensors, third party apps or FIDO's own smartphone app are automatically uploaded to the FIDO platform for analysis. Client data is accessed via secure data exchange and not held by FIDO Tech.

FIDO instantly compares new files against more **than 2.4 million** verified leak and non-leak samples in its growing library to give its decision on leak likelihood and size, which, once verified, further adds to its deep learning knowledge and improves accuracy.

Quarterly software updates go through extensive offline concept testing and development before being made available to clients during beta testing as a release candidate (RC) on the platform. At RC stage, FIDO uses real data to rapidly learn and improve the accuracy of new functions before they go live.

A Global Tech Innovator

FIDO Tech is one of KPMG's top two Global Tech Innovators, and number one in the UK.

To speak to a member of the team, please contact **sales@fido.tech** or call us on **+44 (0) 1869 929001**.

Join our global effort

Because FIDO recognises and internalises its learning, users around the world are helping contribute to a global improvement in leak detection and technical consistency. This level of collaboration is only achievable with an independent and hardware agnostic solution like FIDO.

www.fido.tech

Sample daily report output using FIDO Sweep

Filter results in multiple ways for performance or reporting.

View results as a list.

Examine analysis of any individual result in detail.

Results shown as an area heatmap containing clickable What3Words/// links.

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