

# calibration really worth the effort?

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The calibration of IMS infrasound sensors has been the subject of intense research in recent years, but are the benefits really worth all the effort? From an accuracy perspective alone, it is difficult to argue the case for calibration. However, the question is intentionally provocative, as the rationale for calibration is not only about accuracy. For traceable calibration, the unbroken link with a primary realisation of the measurement quantity demonstrates that IMS data, and the field parameters derived from it, represents something physically meaningful. This principle is vital in all areas of science and technology, trade and everyday life where measurements are important. It brings measurement data within the globally recognised SI system, effectively eliminating concerns about transparency and impartiality, and enabling confidence and trustworthiness in the data to be quantified. In practice, this translates into confidence in the decisions derived from that data, whether that relates to fault diagnosis, the overall operational status of a monitoring station, or evidence of a detection. In the overall remit of the IMS, it is these decisions that ultimately matter, and without reliable data these decisions will always include an element of doubt and be open to challenge.

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