PROFILE

Jean-Michel BARRETEAU

Arrive at the Railway Test Agency (AEF) in 1998, Jean-Michel is currently a specialist engineer at the Metrology hub. It is one of the key links in the quality approach.

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He ensures the measuring instruments are working properly and participates in creating new operating procedures used by metrologists for metrological confirmation.

All the tests are **COFRAC**-certified. To obtain this certification, the measuring instruments must be metrologically calibrated.

Jean-Michel's role in this process is to ensure that the measuring instruments satisfy the specific need expressed by a user. He also responds to the issues encountered by the metrologists in order to adapt the operating procedure to their understanding and obtain results allowing the use of a device to be validated.

Drafting an operating procedure takes into account numerous criteria, such as: Jean-Michel's analysis, the need expressed by the customer, the manufacturers' specifications and also using different standards:

- **The reference standard** designed to calibrate other measurement standards for quantities of a given kind in a given organisation (**LNE**, the French National Testing Laboratory, which is responsible for issuing certificates for measuring instruments).

- **The working standard**, which is calibrated against a reference standard and then used on a daily basis to check measuring instruments (multimeters, calibrators, generators, etc.) used during tests.

Once the operating procedure is finalised, metrological confirmation is carried out by a metrologist. A report is drafted containing all the measurements made and allowing the instrument to be declared compliant or non-compliant.

Open and ready to listen!

His training and advanced technical knowledge help him to guide technicians when they want to ensure that their equipment meets their needs. Jean-Michel's role in this chain of understanding involves adapting to their requests, i.e. he may need to modify the tolerances to declare the equipment compliant and perform correct measurements. If not, the equipment will be declared non-compliant.

Jean-Michel is a specialist engineer who supports and assists the officers of the Railway Test Agency and SNCF establishments (technicenter, infralog, etc.) and shares his metrological knowledge to satisfy users' needs.

HIS CAREER IN THREE STAGES

1988

★ Joined the AEF as Production Manager in the Metrology Department

2011

★ Creation of the Methods Department

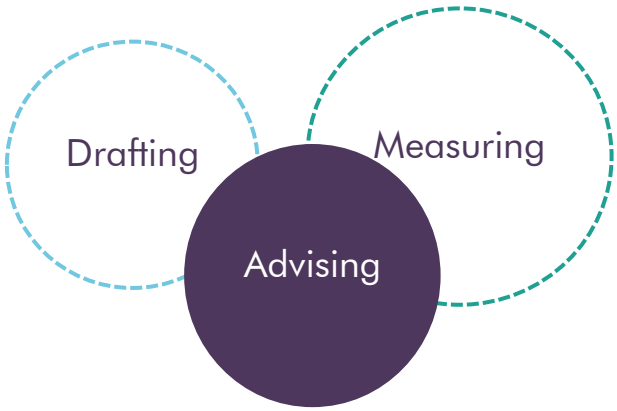
★ Promoted to the post of Specialist Engineer

2019-2020

★ Broadening of skills and knowledge in electrical and mechanical sensors

★Collaboration with the SNCF establishments in the field of Metrology

3 THREE WORDS THAT DESCRIBE YOUR JOB?



WHAT MAKES YOU MOST PROUD IN YOUR JOB?

"The recognition of my technical skills and knowledge which today enable me to respond to the metrological issues encountered by the officers from the AEF and SNCF establishments".

ARE THERE ANY DIFFICULTIES YOU HAVE OVERCOME?

"I have been able to adapt to new technologies in the technical world, align with new manufacturing procedures, collect data, measure, process and compare the measurement results.

The digital transition raises other issues which can be complex to solve."

What do you think the future holds for Measurement and Metrology?

"The future is industry 4.0, in particular the appearance of IoT measurement. It is a technology based on the integration of an information system in order to receive and transfer data on wireless networks. All these digital transformations are very interesting, but I have not yet had the opportunity to work on this type of equipment. "

ANY FINAL WORDS TO ROUND OFF THIS INTERVIEW?

« Metrologie : the science of measurement ».