# Global standard for determination of evidential value

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The Netherlands Forensic Institute (NFI) and the University of Twente's CTIT Institute will collaborate over the next four years to establish an ISO standard for the validation of methods used in the interpretation of forensic evidence. This will eventually allow results from forensic investigations to be compared and exchanged between countries.

"It will increase trust in forensic investigations, as everyone will work to the same standard and research is validated in the same manner everywhere. The criminal justice chain can be assured that the forensic data supplied are of a high quality. Regardless of which country the data originate from," says scientific researcher Didier Meuwly. Meuwly is principal scientist at NFI and part-time full professor (Forensic Biometrics Chair) at CTIT's department of Services, Cybersecurity & Safety (SCS).

On behalf of the NFI and with the help of the Netherlands Standarization Institute, he submitted a proposal for an ISO standard that should eventually enable a global standard for the determination of evidential value. Forensic experts from 15 different countries, including the United States, Great Britain, Germany, Sweden, Russia, and Australia have given consent for the proposal. As a result, the NFI and UT will be given 4 years to develop the standard.

Initially, it will entail a standard for the validation of interpretation methods for evidence when using the automatic methods for biometric evidence collection (so-called likelihood ratio methods). Other research

fields can also make use of this ISO standard in future, for the determination of the evidential value of traces.

## Likelihood ratio

Forensic researchers from the NFI have been expressing judgments for some time about the evidential value on the basis of a so-called likelihood ratio (LR) method. It is used to argue how much more probable results are when following one hypothesis as opposed to another hypothesis. Experts have been using certain definitions, such as 'much more probable,' for a long time.

More and more research fields within the NFI developed methods for a numerical substantiation of this LR. These substantiations should be validated. The new ISO standard will ensure this happens.

  **More information:** Validation of Likelihood Ratio Methods Used for Forensic Science Evaluation: Applications in Forensic Fingerprints. [doc.utwente.nl/91812/1/thesis_R_Haraksim.pdf](doc.utwente.nl/91812/1/thesis_R_Haraksim.pdf)

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