



We publish what we measured, the uncertainty on it, and **what we have not measured.**

THE PROBLEM

Numbers about belief travel without their uncertainty

A figure enters public argument as a bare percentage. Nobody states the base it was taken on, whether the question changed between waves, or how much of the movement the instrument itself could account for.

In physical measurement this would be unacceptable: no calibration certificate is issued without an uncertainty budget. Figures about what populations believe are held to a far lower standard, and used to justify far larger decisions.

Belief displacement

The signed distance between measured belief and the belief the verified evidence would support. The laboratory's primary measurand.

Uncertainty budget

The itemised account of every source of doubt in a figure, combined per GUM. No result is published without one.

THE METHOD

Treat a contested claim as a measurand

The **Cognitive Warfare Information Metrology Framework** anchors a proposition to a verified truth value, measures the prevalence of belief against that anchor, and reports the result with a full uncertainty budget in the sense of the GUM.

The central quantity is **belief displacement**: how far a population's belief sits from what the verified evidence supports. It is reported with a coverage interval and an explicit account of what has not been evaluated.

Verified reference

A proposition with a stated truth value and a documented source chain. Every measurement is referred to one.

Declared gaps

Quantities the record cannot yet support are stated as unmeasured. Never omitted, never estimated.



Why a corrupted reference is the hardest failure to catch

A reference that cannot be checked against something independent of itself will, when it is wrong, make every measurement founded on it wrong in the same direction and with the same confidence. Internal consistency will never reveal it. The discipline is to name every reference, verify it outside the claim, and declare what cannot yet be checked.

Perialetheia applies the International Vocabulary of Metrology (VIM), the GUM uncertainty framework (JCGM 100:2008), ISO/IEC 17025 and the detection conventions of Currie (1968) and ISO 11843-1 to belief in the information environment. Measurands: BDI, NCS, CAV, ISRG. Reference standard: VFRB.

WHAT A PUBLISHED FIGURE LOOKS LIKE

$$\text{BDI} = +0.420 \pm 0.153 \quad (k = 2)$$

+0.420

Belief displacement. 42 per cent of the claim-aware population held a proposition verified false.

±0.153

Expanded uncertainty. Dominated by the survey instrument, not by sample size.

k = 2

Coverage factor, about 95 per cent. Stated, never implied.

unmeasured

The endorsement rate among respondents never asked. Published as unmeasured, not estimated.

Two published reports

No. 2

The Brexit £350m claim

Belief in the figure is widely reported as having **hardly shifted** since the referendum. That rests on setting 47% (2016) beside 42% (2018). The two readings do not share a base: the first is the proportion of *all* GB adults, the second the proportion of *those who had heard the claim*. Rebase either onto the other and the resulting interval contains the other wave's reading. Neither stability nor decline can be established from the published record, and the missing quantity is declared unmeasured rather than estimated.

[doi:10.5281/zenodo.22303739](https://doi.org/10.5281/zenodo.22303739)

No. 1

GM food safety beliefs in Europe

The fall in European concern about GM food between 2005 and 2019 is cited as evidence that public opinion moved. That series spans an **undocumented change of question format**. On the instrument that stayed constant, the readings barely moved. A change in the measuring instrument was read as a change in the measurand, and that term dominates the combined variance of the anchor measurement.

[doi:10.5281/zenodo.22302286](https://doi.org/10.5281/zenodo.22302286)

HOW A MEASUREMENT IS MADE

Four steps, each with a written record

1

Anchor the claim

Assign a verified truth value from sources outside the claim, graded for reliability and recorded with the date checked.

2

Register the instrument

Record the survey, its mode, its base, its fieldwork date and its documented biases, before any figure is read from it.

3

Budget the uncertainty

Itemise every source of doubt, statistical and systematic, state the distribution and divisor for each, and combine per GUM.

4

Report the limits

State what the procedure can resolve, and name every quantity the record cannot support as unmeasured.

EVERYTHING IS ARCHIVED AND CITABLE

Four permanent records

RECORD	WHAT IT HOLDS	IDENTIFIER
Reference base	Propositions with verified truth values, their source chains, and the survey instruments used to read belief in them.	10.5281/zenodo.22277182
Starter kit	Open-source Python implementing the reference base, the uncertainty budget engine and the report generator. MIT licensed.	10.5281/zenodo.22288414
Report No. 1	GM food safety beliefs in Europe, with its reproducibility annex and uncertainty budget.	10.5281/zenodo.22302286
Report No. 2	The Brexit £350m claim, with its reproducibility annex and uncertainty budget.	10.5281/zenodo.22303739

Working with the laboratory. No prior expertise in cognitive warfare is required. The measurement discipline is learnable; the willingness to state what you do not know is the harder part. Involvement is arranged case by case, with contributors who want to apply the method to a documented case, curate and verify references, or calibrate the instruments it depends on. Get in touch directly.

This laboratory is independent. It does not represent the position of any government, military or international organisation. Currently supported by no one.