

an introduction to software newbies

Dutch Authority for Digital Infrastructure
Ministry of Economic Affairs

protecting software items in legal measuring instruments against unwanted changes

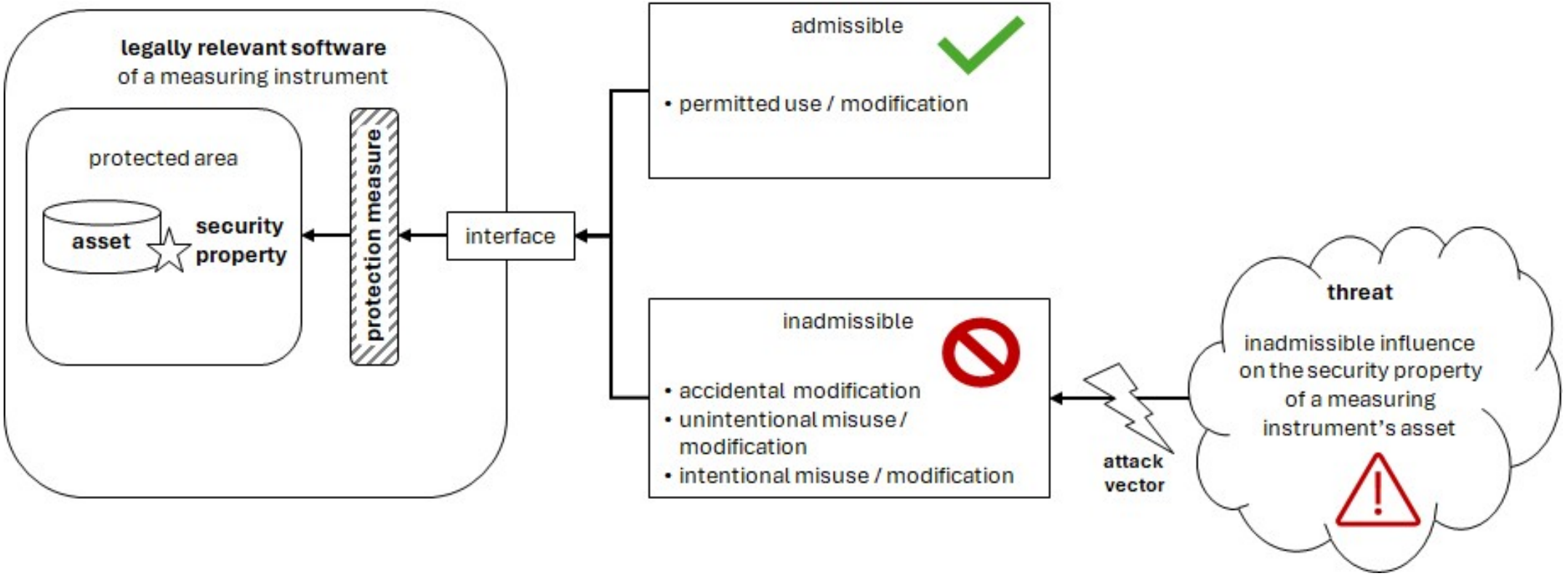
to ensure integrity, authenticity and availability

NL – Jeroen Rommerts (RDI) 14 September 2026

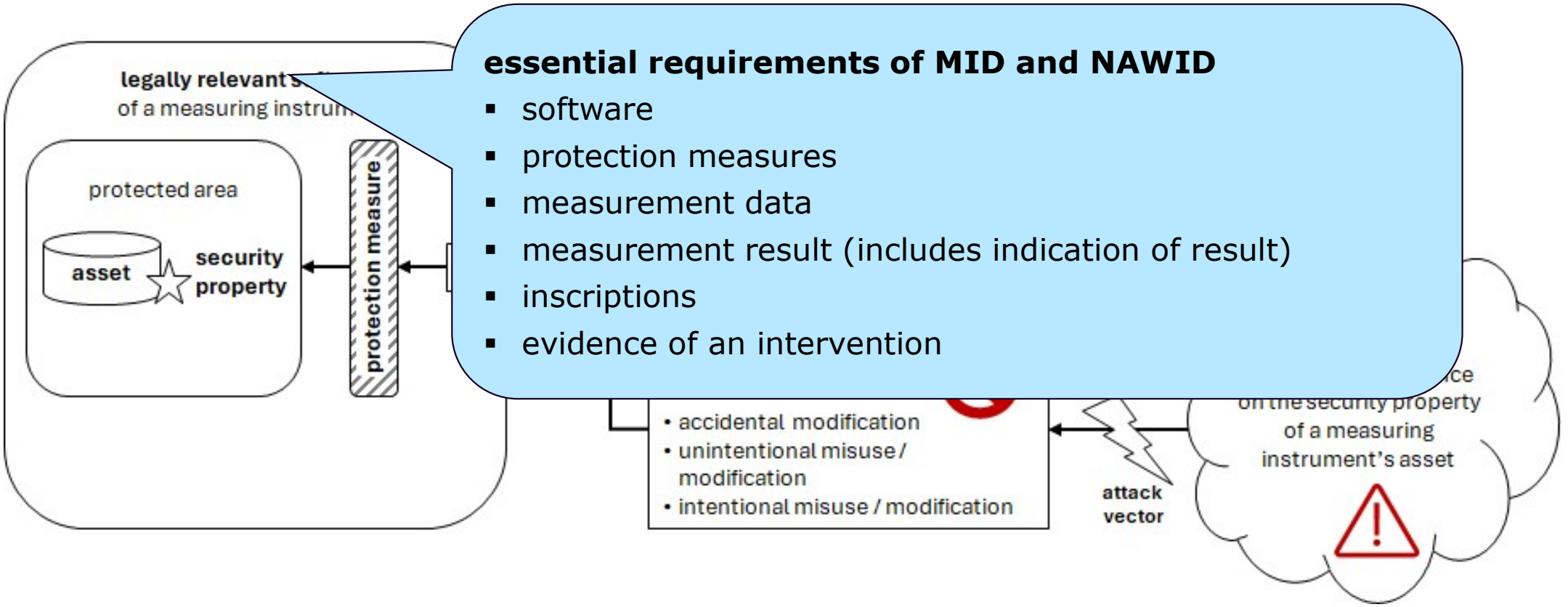


Guide to the Guides:

- The Big Picture
- The Big Goal (& ‘Core Requirements’)
- The Big Question: is protection adequate?
  - previously accepted adequate protection measures
  - risk assessment



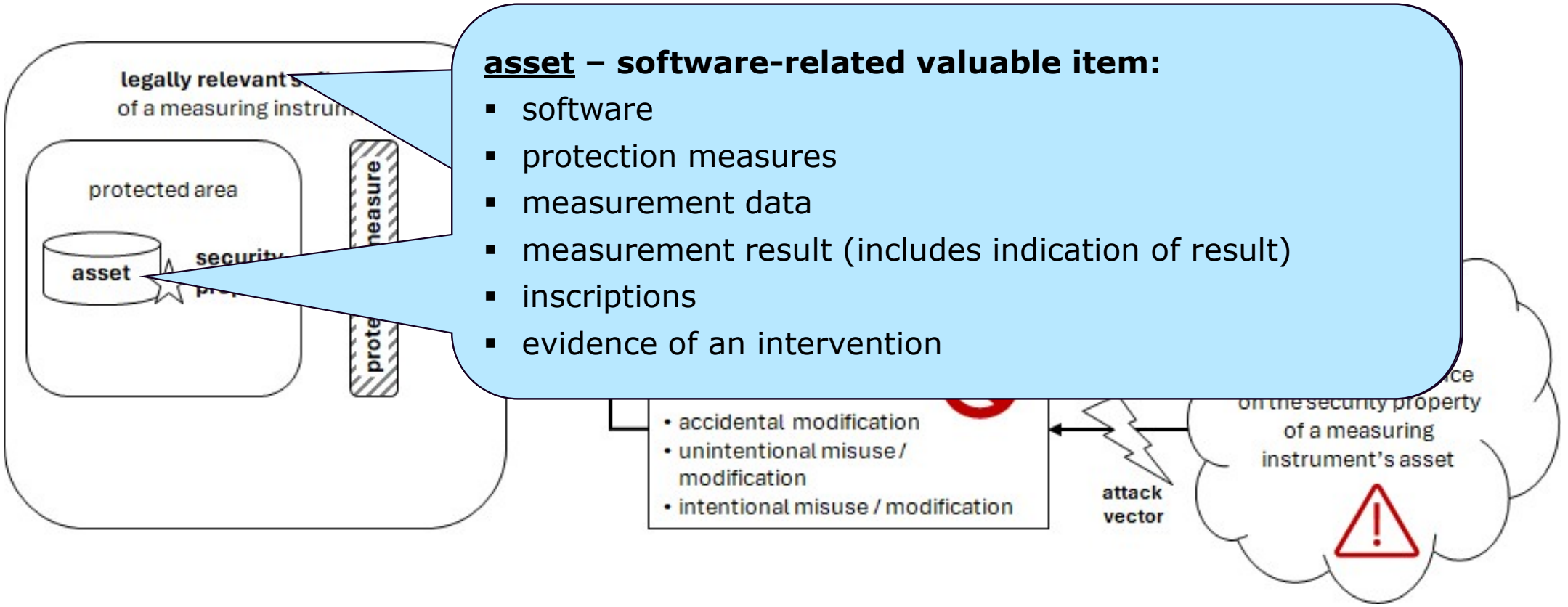
The Big Picture



essential requirements of MID and NAWID

- software
- protection measures
- measurement data
- measurement result (includes indication of result)
- inscriptions
- evidence of an intervention

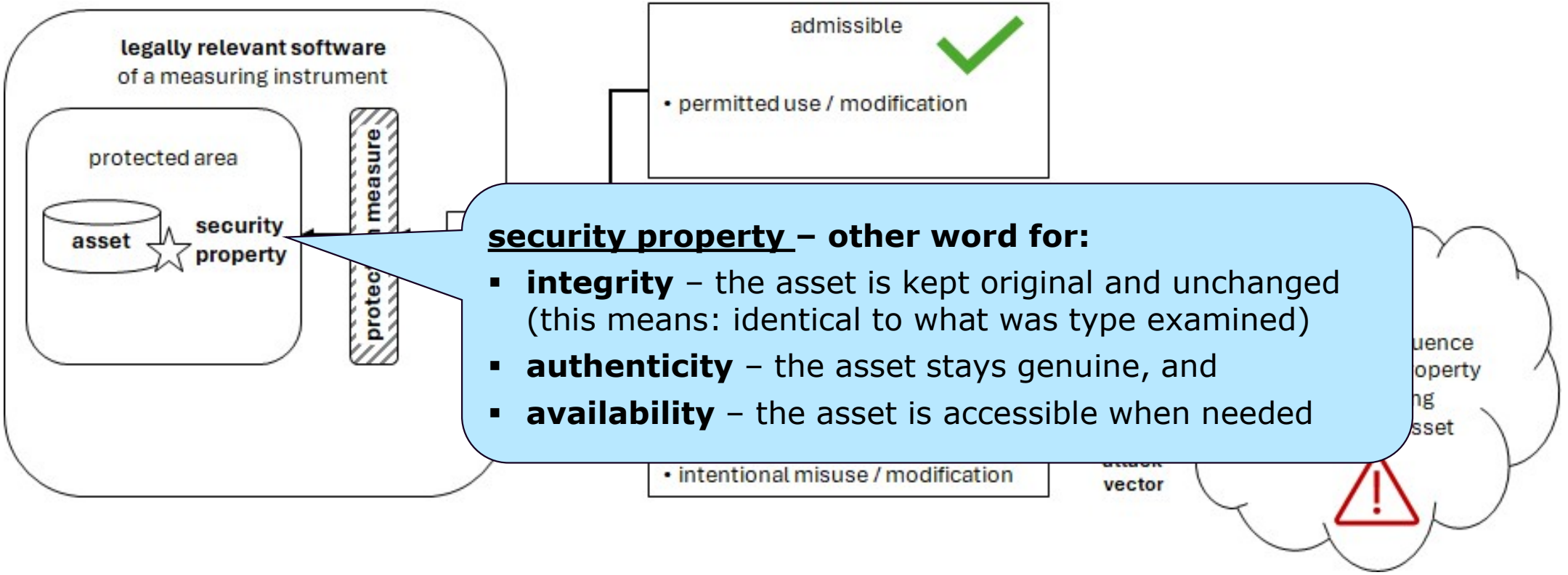
The Big Picture



<u>asset</u> – software-related valuable item:

- software
- protection measures
- measurement data
- measurement result (includes indication of result)
- inscriptions
- evidence of an intervention

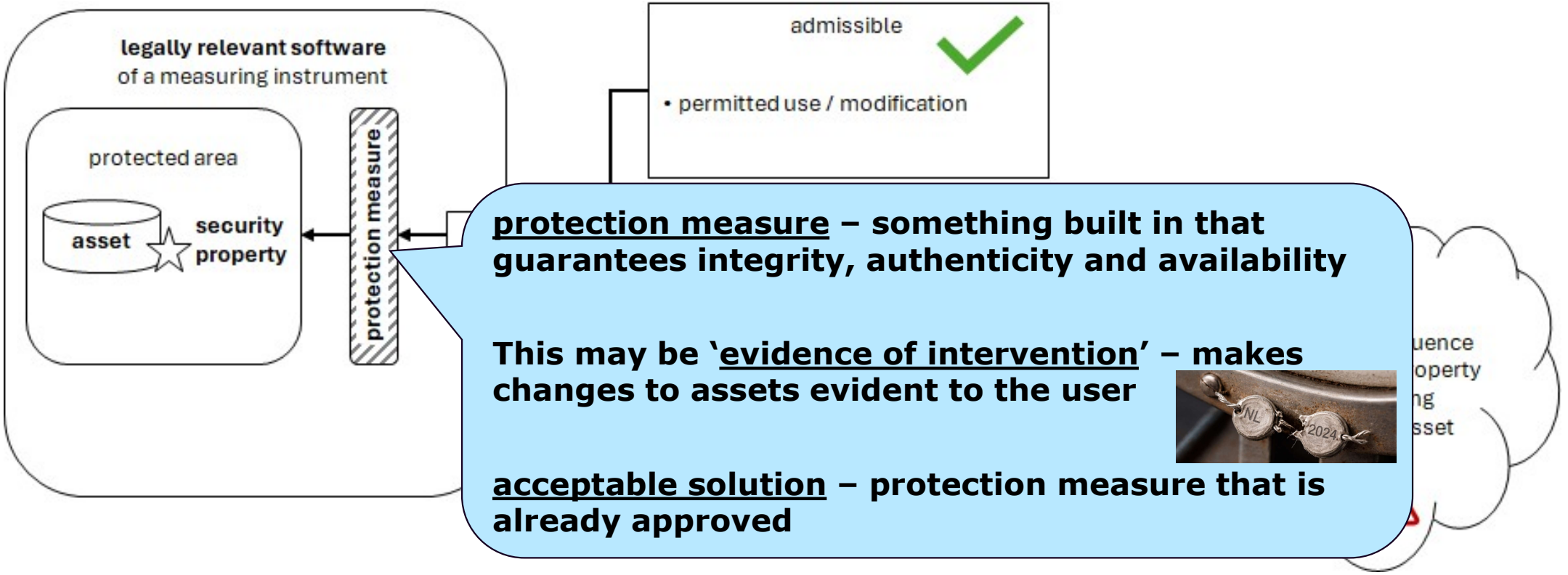
The Big Picture



<u>security property</u> – other word for:

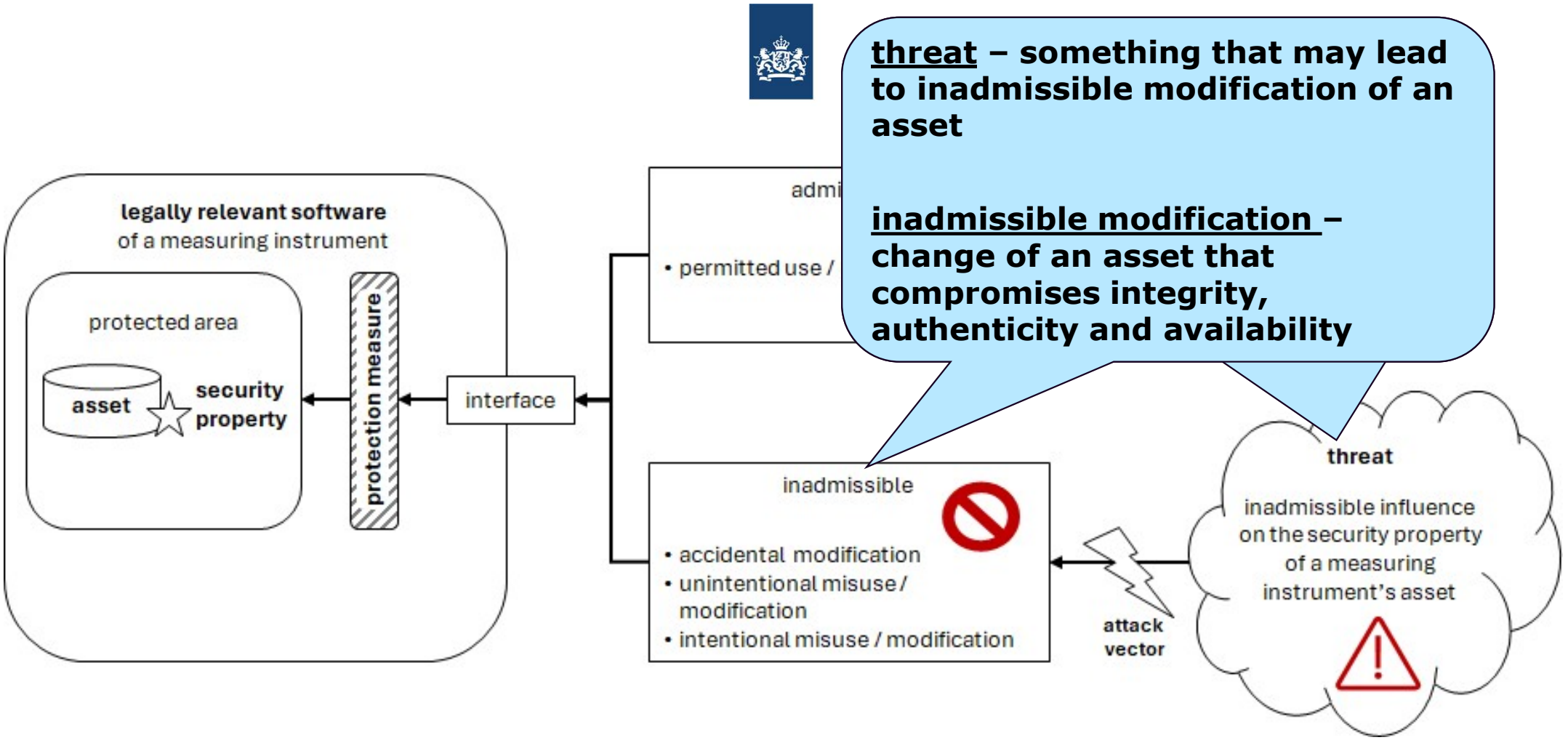
- **integrity** – the asset is kept original and unchanged (this means: identical to what was type examined)
- **authenticity** – the asset stays genuine, and
- **availability** – the asset is accessible when needed

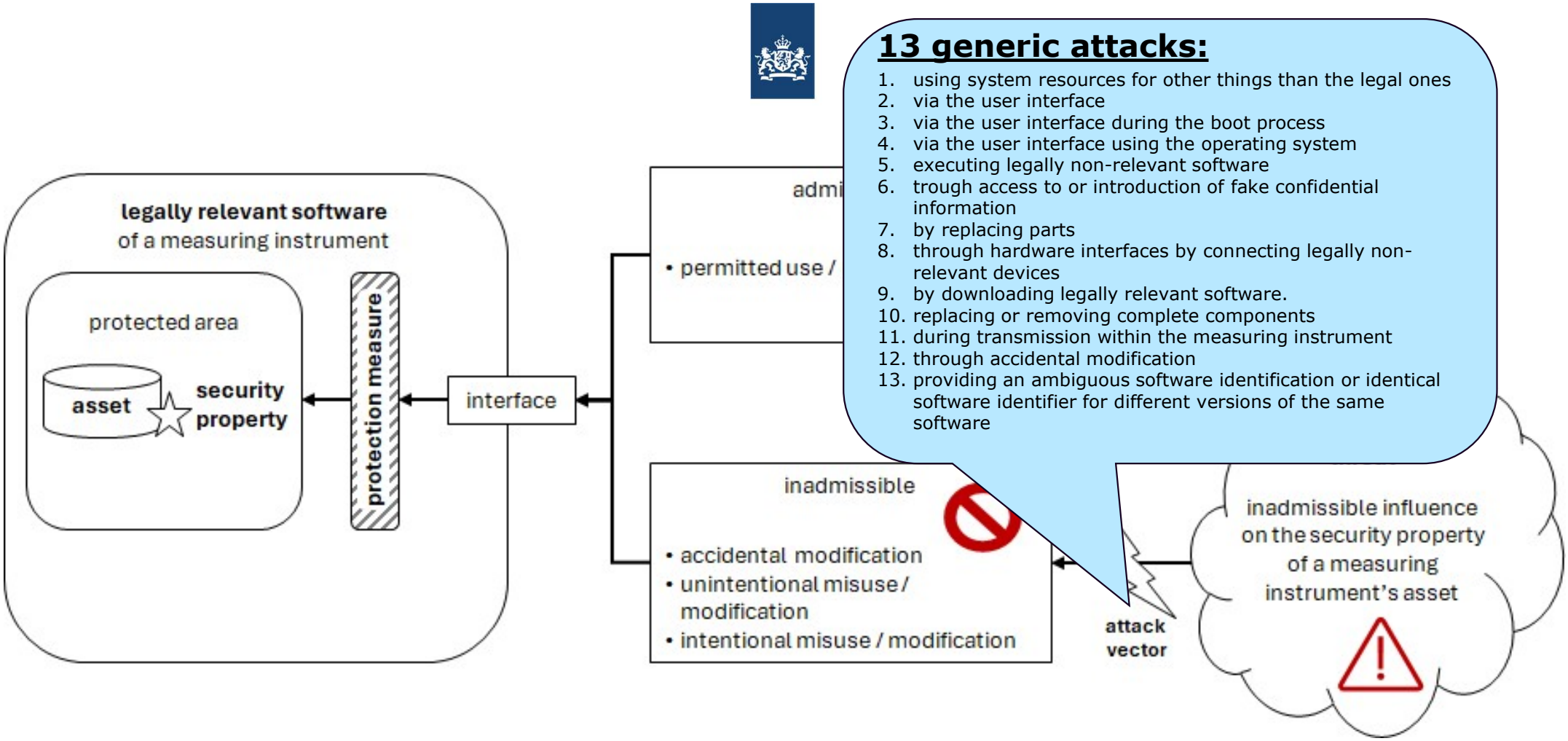
The Big Picture



The Big Picture

The Big Picture





The Big Picture

The Big Goal

The WELMEC 7 Guides aim to **adequately protect** the **software-related valuable items** that ensure metrological quality in legal measuring instruments from **modification**, to preserve their integrity, authenticity and availability.

Core Requirements

- All **software-related valuable item(s)** in the measuring instrument shall be **adequately protected** to keep their integrity, authenticity and availability.
- Evidence of intervention shall be **clear**, **retained** for a reasonable time and **periodically be checked** (and lead to appropriate action).
- If a change of software-related valuable item(s) does **not require reverification**, the **evidence of intervention** shall still record **essential details** (time, what was changed, and – if software itself is changed – the software identity before and after the change).

do protection measures adequately protect software-related valuable items?

in legal measuring instruments
against inadmissible changes
to ensure integrity, authenticity and availability

The Big Question 

The Big Question

do protection measures
adequately protect
software-related valuable items?

Inventory of protection measures

implemented by the manufacturer

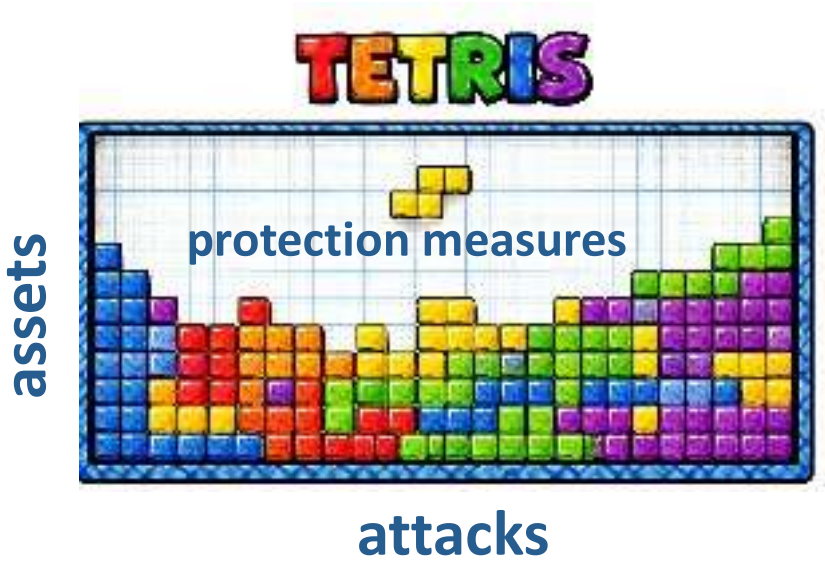
acceptable solution

risk assessment

attacks

Inventory of software-related valuable items

in the instrument



The Big Question

do protection measures
adequately protect
software-related valuable items?

Inventory of protection measures

implemented by the manufacturer



acceptable solution

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Inventory of software-related valuable items

in the instrument

7.3 **Previously accepted adequate protection measure** (in the instrument)

7.6 **Risk assessment** (risk = probability x impact)



A Small Summary