

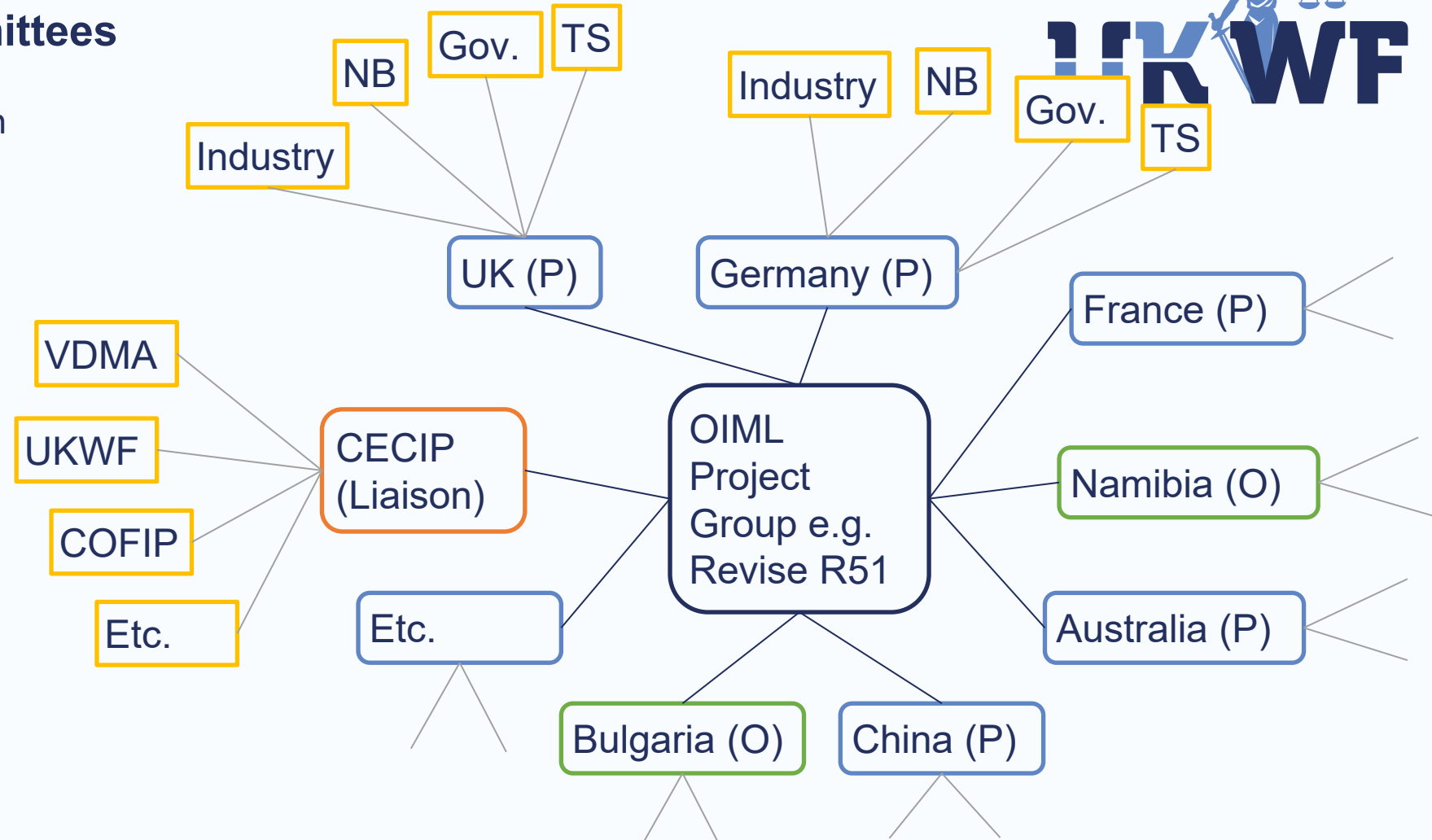


OIML etc. Update

Andy Goddard

Work on Standards committees

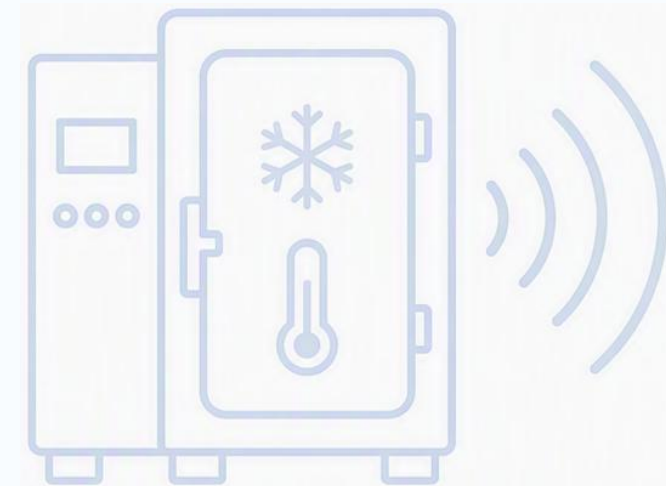
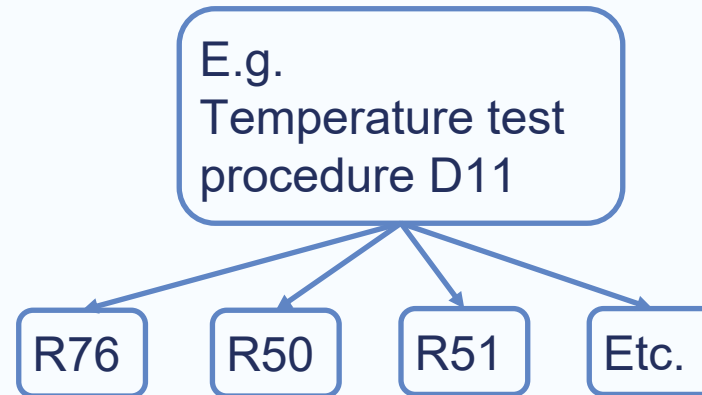
- CECIP is large, has status, is an official 'Project liaison', usually our vehicle for representation
- CECIP LMG has rapporteur system
- Only P-members get a vote
- Speak to Andy if you want to get involved



OIML D11 General Environmental and Electromagnetic test requirements



- OIML Documents
 - General requirements for placement into future (revisions) of OIML Recommendations
 - Subject specialisation
 - Consistent requirements across different instrument types
 - D11(2026) is now issued – gradual filter into individual Recommendations

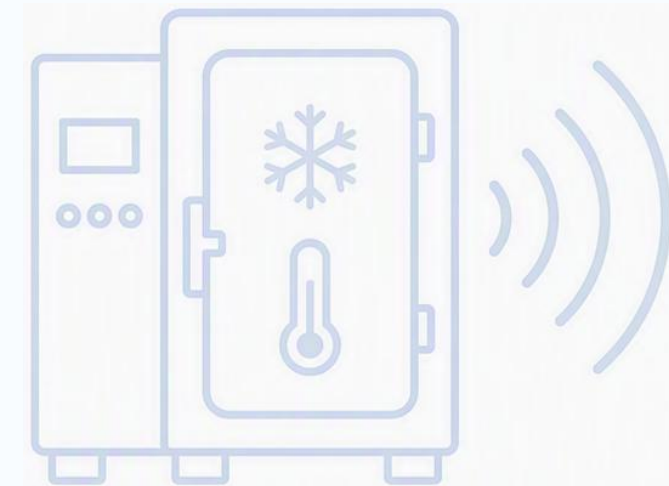


OIML D11 General Environmental and Electromagnetic test requirements



- D11(2026) Key changes
 - Bursts and Surges severity doubled (0.5->1 kV and 1->2 kV).
 - RFI frequency increase (10 V/m from 2 GHz up to 3 GHz, sometimes 6 GHz).
 - Surge tests limited to cables >10 m in the future (down from 30 m).
 - Introduction of Conducted, common mode disturbances in frequency range 2 kHz to 150 kHz.
 - Surge and ESD tests to be conducted at highest severity **and all lower severities!**
- Consider testing new products to these requirements

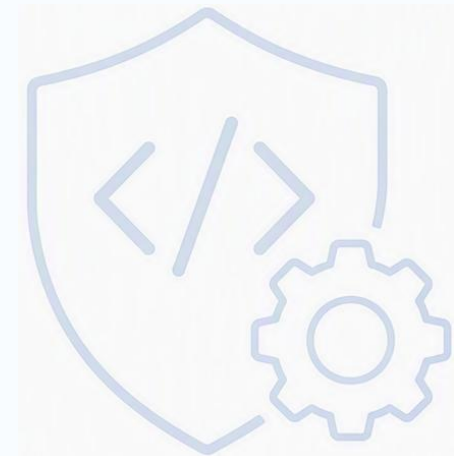
Current edition	Revision status
2026	Published



OIML D31 General Software requirements

- D31(20XX) Key changes
 - Minor technical changes
 - Reshuffling of clause order
 - Make software requirements easier to transplant directly into Recommendations
 - Previously longer prose needed interpretation / adaptation
- New to D31
 - Requirements start at §6 – skip ahead here
 - §6.2 general requirements applicable to all
 - §6.3 specific additional requirements
(transmission, storage, sw separation, download without breaking seal)

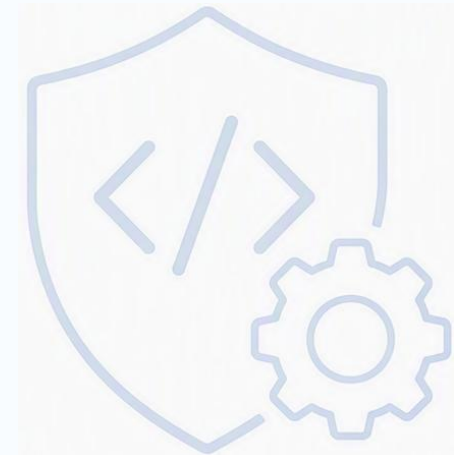
Current edition	Revision status
2023	Publish end-2026



WELMEC Guide 7.2 Software requirements for MID

- OIML D31 Gives template sw requirements for OIML Recommendations
- WG7.2 Gives sw requirements ‘derived’ from MID – a lot of overlap
- WG7.2(2026) Key changes
 - “Recast”, totally new “risk-based” approach
 - Less prescriptive / more flexible 👍
 - Technologically neutral 👍
 - Potentially more complex 🤔
 - Potentially more interpretation and arguments 🤔
- Risk assessment methodology + terminology taken from ISO/IEC 27005; helpful for Cyber Resilience Act?

Current edition	Revision status
2025 & 2026	Published Aug 2026, w/ transition period



Assets-Threats-Matrix derived from WELMEC Guide 7.2: 2026

Threats consist of at least one asset and one corresponding statement of which security property (availability, integrity and/or authenticity) can be invalidated by the threat by means of an attack vector.

NA: Not applicable	RA: Risk analysis
AS: Acceptable solution	BO: RA and AS

Asset No.	Assets/Properties	No.	Attack Vector	Inadmissible influence on the measurement process by executing other functions	Inadmissible influence via user interfaces	Inadmissible influence via the boot process	Inadmissible influence via the administration of the operating system	Inadmissible influence via legally non-relevant software	Inadmissible influence by obtaining confidential information	Inadmissible influence by replacing physical parts within the measuring instrument	Inadmissible influence via hardware interfaces	Inadmissible influence by downloading legally relevant software	Inadmissible influence by replacing or removing legally relevant components	Inadmissible influence by man-in-the-middle attacks	Inadmissible influence due to accidental modification	Inadmissible influence by incorrect software identification	+1	-1
1	software in main component			4.3.1.1	NA	NA	NA	NA	NA	4.8.1.1	4.4.1.1	NA	4.1.1	NA	NA	4.6.1		
2	parameters in main component			4.3.1.1	NA	NA	NA	NA	NA	4.8.1.1	4.4.1.1	NA	4.1.1	NA	4.4.2.1	4.6.1		
3	measurement data in main component			4.3.1.1	NA	NA	NA	NA	NA	4.8.1.1	4.4.1.1	NA	4.1.1	NA	4.4.2.1	4.6.1		
4	measurement result in main component			4.3.1.1	NA	NA	NA	NA	NA	4.8.1.1	4.4.1.1	NA	4.1.1	NA	4.4.2.1	4.6.1		
5	inscriptions for main component			4.3.1.1	NA	NA	NA	NA	NA	4.8.1.1	4.4.1.1	NA	4.1.1	NA	NA	4.6.1		
6	evidence of an intervention in main component			4.3.1.1	NA	NA	NA	NA	NA	4.8.1.1	4.4.1.1	NA	4.1.1	NA	4.4.2.1	4.6.1		
7	meas. result transmitted main comp. -> disp.			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.1.1	NA	NA		
8	software in display component			4.3.1.1	RA	NA	NA	NA	NA	4.8.1.1	4.4.1.1	NA	4.1.1	NA	NA	4.6.1		
9	measurement result in display component			4.3.1.1	RA	NA	NA	NA	NA	4.8.1.1	4.4.1.1	NA	4.1.1	NA	NA	4.6.1		
10	evidence of an intervention in display component			4.3.1.1	RA	NA	NA	NA	NA	4.8.1.1	4.4.1.1	NA	4.1.1	NA	NA	4.6.1		

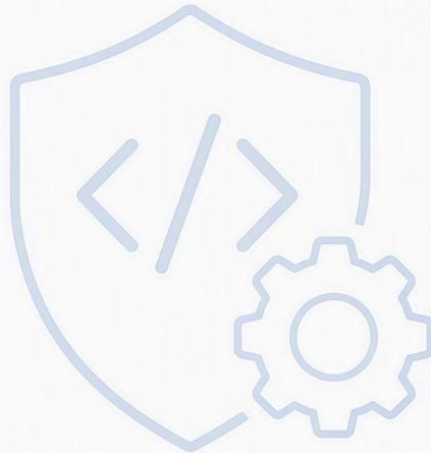
4.8 Inadmissible influence by modifications of the hardware

4.8.1 Inadmissible influence by removing or replacing physical parts

4.8.1.1 Solution: sealed hardware housing (active)

Risk Class B	Risk Class C	Risk Class D
General The hardware housing of the measuring instrument is protected against opening or replacing internal parts by physical means, e.g., a hardware seal.		
Variants -		
Conditions -		
Keywords Assets: software, parameters, measurement data, measurement result, evidence of an intervention, inscriptions Security properties: integrity, authenticity, availability Attack vectors: IIR1 Status: active		
Required Documentation Description of the hardware seals and their properties. Description of the placement of the hardware seals.		

Expect a
searchable,
filterable database
soon



Risk analysis according to the WELMEC Guide 7.6:2021

*Impact score:

1/3 for attacks needing to be repeated for each individual measurement event

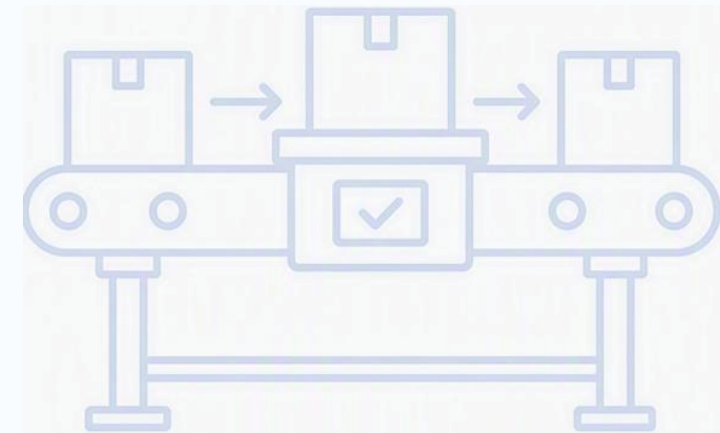
1 for attacks executed once affecting all future (or past)

Asset Nr.	DELETE Threat Nr.	Attack Nr.	Attack vector description	<u>Time</u>	<u>Expertise</u>	<u>Knowledge</u>	<u>Window of opportunity</u>	<u>Equipment</u>	Total resilience	Probability score	Impact score*	Risk
				[0 to 19]	[0 to 8]	[0 to 11]	[0 to 10]	[0 to 9]			[1 ; 1/3]	
									0	5	1.00	5.0
									0	5	1.00	5.0

OIML R51 Catchweighers/checkweighers

- Revision process started in 2019! Close to 1CD, convenor Morayo Awosola has left
- Key changes:
- “Check point model” for checkweigher testing – reduced number of test weighings applying reduced MPEs
- Clarification checkweigher sorting (reject) device checked at verification, not type approval
- More specific tests for vehicle mounted front-end-loaders etc. e.g. check speed interlocks, tilt interlocks
- TBC Reduced number of weighings for front-end-loaders etc. due to hydraulic temps, grease loss in pivots
- Clarified securing and protection requirements inc. software and hardware seals, interchangeable components
- Clarified marking requirements, on plate, on display
- Completely new sw requirements adapted from D31 (and harmonised with R76)
- EMC Test severities increased, adapted from D11(2026)

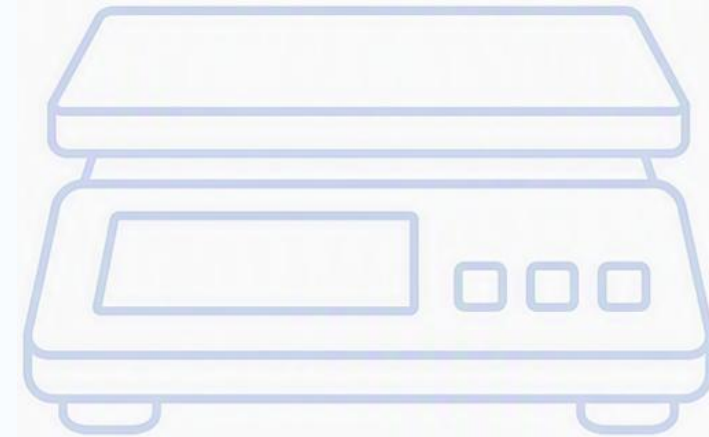
Current edition	Revision status
2006	Close to 1CD, No convenor



OIML R76 NAWIs

- Revision process started in 2017! Fruitless, eventually taken over by BIML mid-2023 (unprecedented)
- “Core group” created, fewer cooks
- Scope massively reduced, expect similar to R76(2006)
- Expected key changes:
 - Clarified marking requirements, on plate, on display
 - Reference to latest D31 sw requirements
 - Reference to latest D11 EMC requirements
- NB: Plan is to reference instead of adapt text directly
 - Consistency with other Recommendations 👍
 - Requires reading 3+ documents and cross-referencing 🙄

Current edition	Revision status
2006	Restarted...



**Questions now?
And/or find me later**

