

Twining Project “Strengthening the capacities of the Bureau of Metrology for internal market integration”

Twining ref. MK 12 IPA EC 01 16 TWL



A Project funded by the European Union and Implemented and led by CMI

Non–Automatic Weighing Instruments in-use verification

Republic of Macedonia, Skopje, 24.08.2017



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- ☐ **Legislation to be applied**
- ☐ **Standards applied**
- ☐ **Technical requirements**
- ☐ **Subsequent verification**



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Subsequent verification

- ☐ **Meanwhile the Conformity assessment – EU verification is fully harmonized the subsequent verification (verification of NAWI in use) differs from member state to member state within EU...**



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Some examples

Czech Republic

- ☐ Verification of NAWI is a task of Czech Metrology Institute as the governmental body
- ☐ A period of two years is applied for NAWI (set up by the law)



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...

France, Netherland, GB

- ☐ Verification of NAWI is a task of private bodies
- ☐ Rather a certain period of verification an inspection is applied



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Czech Republic

- ☐ For the verification the metrology law and decrees (bylaws) are applied...
- ☐ The law specifies areas where verified NAWIs shall be used



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Typical areas

- ☐ Trade transactions
- ☐ Health care
- ☐ Environment protection
- ☐ Use for penalties, taxes etc.....



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Responsibilities

- ☐ The user of NAWI is responsible
- ☐ After a repair a servicing companies are responsible for submitting the NAWI for the verification



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Responsibilities

The user

- ☐ He has to submit the NAWI for subsequent verification in suitable time before the verification validity expiration



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Responsibilities

Servicing company

- ☐ Such company shall have a registration for servicing verified instruments
- ☐ They have registered sticker that can be used for certain time as verification marks



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Responsibilities

- ☐ After a repair the sticker valid 30 days
- ☐ Within these 30 days the instrument shall be verified by CMI



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Which instruments can be verified?

- ☐ Already initially verified NAWIs (in case of NAWI verified before 2004)
- ☐ EC/EU verified NAWIs (after 2004)



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Applied requirements

- ☐ The same requirements and testing methods as described in EN 45501 are used
- ☐ The range of testing is the same as for EU verification



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Maximum permissible errors (MPE)

Maximum permissible errors	For loads, m , expressed in verification scale intervals, e			
	Class I	Class II	Class III	Class IIII
$\pm 0,5 e$	$0 \leq m \leq 50\,000$	$0 \leq m \leq 5\,000$	$0 \leq m \leq 500$	$0 \leq m \leq 50$
$\pm 1,0 e$	$50\,000 < m \leq 200\,000$	$5\,000 < m \leq 20\,000$	$500 < m \leq 2\,000$	$50 < m \leq 200$
$\pm 1,5 e$	$200\,000 < m$	$20\,000 < m \leq 100\,000$	$2\,000 < m \leq 10\,000$	$200 < m \leq 1\,000$



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Tests during verification :

- ☐ Errors of indication
- ☐ Accuracy of zero and tare device
- ☐ Repeatability
- ☐ Exccentricity
- ☐ Discrimination (for digital NAWI only at module B)
- ☐ Other tests in special cases (Unusual design or strange results)



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- ☐ **How to perform the tests it is described in technical instruction based on EN 45501**



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Marking of NAWI



National verification stickers are applied

- CM** i.d. symbol of CMI,
- 6** i.d. of CMI Inspectorate
- 01** Last two digits of the year of verification



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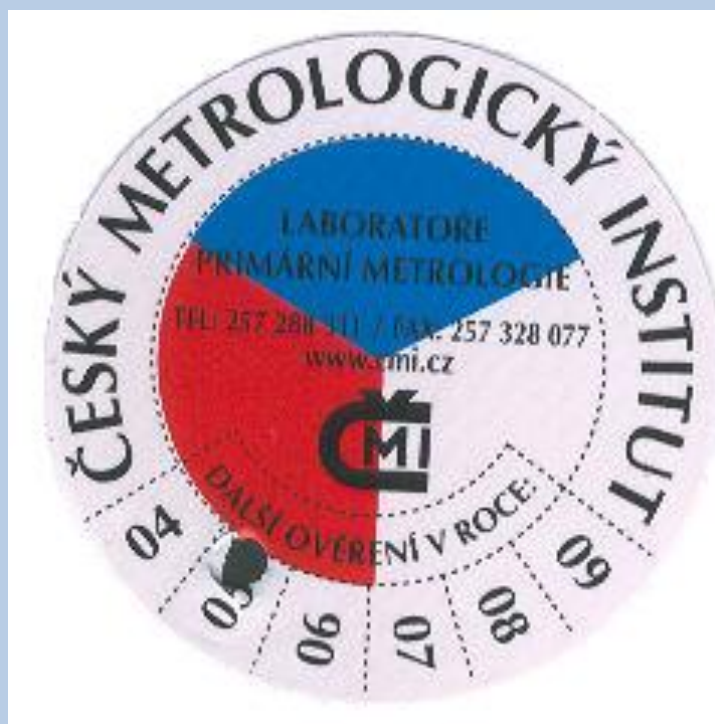
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Thanks for your attention

ikriz@cmi.cz

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