

# Participation experience of NSC “Institute of Metrology” in EMRP/EMPIR Projects



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**General Director of NSC “IM”**  
**(Kharkov, Ukraine),**  
**CIPM Member,**  
**COOMET Vice-President**



**EMRP 2012**

**SIB60 Surveying**

**External Unfunded Partner**

## Metrology for long distance surveying

Short Name: Surveying, Project Number: SIB60



### PARTICIPATING EURAMET NMIS AND DIS

FGI-GG (Finland)  
INRIM (Italy)  
IPQ (Portugal)  
LNE-LCM/CNAM (France)  
MIKES (Finland)  
PTB (Germany)  
RISE (Sweden)  
VSL (Netherlands)

### OTHER PARTICIPANTS

National Scientific Centre Institute of Metrology (Ukraine)

### INFORMATION

PROGRAMME  
EMRP

FIELD  
SI Broader Scope

STATUS  
completed

CALL  
2012

DURATION  
2013 - 2016

RESEARCHER GRANTS  
6



**P. Neyezhmakov, V. Kupko**  
National Scientific Centre "Institute of Metrology" (NSC-IM)



## EMPIR 2015

EMPIR Call 2015 – Health, SI, Normative and Research Potential

Selected Research Topic number: **SRT-s11**  
Version: 1.0



Title: Maintaining and disseminating the new SI unit kilogram via spheres of natural silicon

**External Funded Partner**

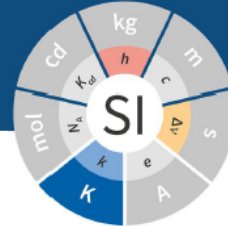
**SISi**

SI ranked list			
1	15SIB01	JRP-s09	FreeFORM
2	15SIB02	JRP-s14	InK2
3	15SIB03	JRP-s16	OC18
4	15SIB04	JRP-s02	QuADC
5	15SIB05	JRP-s15	OFTEN
6	15SIB06	JRP-s01	NanoMag
6	15SIB07	JRP-s13	FuturePhotometry
8	15SIB08	JRP-s04	e-SI-Amp
9	15SIB09	JRP-s08	3DNano
10	15SIB10	JRP-s07	MetroBeta
11		JRP-s05	GraZ
12		JRP-s12	PRECIOUS
13		JRP-s10	DIGSY
14		JRP-s03	METeSPM
15		JRP-s11	SISi
16		JRP-s17	Tempivet

## EMPIR 2016

Implementing the new kelvin 2

Welcome to the fourth and final Newsletter of InK2 project!



**15SIB02 InK2**

**External Observer**

## Seminar for COOMET

“The European Metrology Programme for Innovation and Research (EMPIR)”

2017-12-04, PTB Braunschweig, Germany

(at the initiative of **COOMET Vice-President Prof. Pavel Neyezhnikov**)

Dagmar	Auerbach	dagmar.auerbach@euramet.org	EURAMET e.V.
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Fedor	Khrapov	hrapov@vniiftri.ru	VNIIFTRI, Russia
Doniyor	Kodirov	kodirovd@gmail.com	Uzstandard, Uzbekistan
Nadezhda	Liahkova	coomet@belgim.by	BELGIM, Belarus
Saidtojiddin	Mavlonov	saidtojiddin@mail.ru	Tajikstandard, Tajikistan
Nino	Mikanadze	nino_mikanadze@yahoo.com	GEOSTM, Georgia
Pavel	Neyezhnikov	coomet@metrology.kharkov.ua	NSCIM, Ukraine
Lazizbek	Saidoripov	Saidoripov@nim.uz	Uzstandard, Uzbekistan
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Peter	Ulbig	peter.ulbig@ptb.de	PTB, Germany
Maryna	Yarmalovich	yarmolovich@belgim.by	BELGIM, Belarus
Annette	Kögler	annette.koegler@ptb.de	PTB, Germany

The Seminar was attended by representatives of NMI/NI from 7 COOMET member-countries (Belarus, Georgia, Germany, Russia, Tajikistan, Ukraine and Uzbekistan) and also EURAMET and EMPIR Secretariats.

### The agenda included a number of issues:

- Introduction course for participants.
- Introduction to EMPIR.
- Concept of EMPIR.
- Rules for participants.
- Contribution and impact of EMPIR Projects.
- Participation in EMPIR topics.
- Structure of Projects.
- Examples of external partnership.
- Projects of potential research topics.





## Research capabilities for radiation protection dosimeters

Short Name: DOSEtrace, Project Number: 17RPT01



Exclusion Zone in Chernobyl, Ukraine - 2016.03.19 - Dosimeter

COORDINATOR

Amra Šabeta (IMBiH)

### PARTICIPATING EURAMET NMIS AND DIS

GUM (Poland)

IMBiH (Bosnia and Herzegovina)

INM-MD (Moldova)

IRB-SSDL (Croatia)

IST/LPSR (Portugal)

PTB (Germany)

SCK-CEN/LNK (Belgium)

SMU (Slovakia)

TAEK (Turkey)

VINS (Serbia)

### OTHER PARTICIPANTS

Elliniki Epitropi Atomikis Energeias  
(Greece)

National Scientific Centre Institute of  
Metrology (Ukraine)

Universidad de Santiago de  
Compostela (Spain)

### INFORMATION

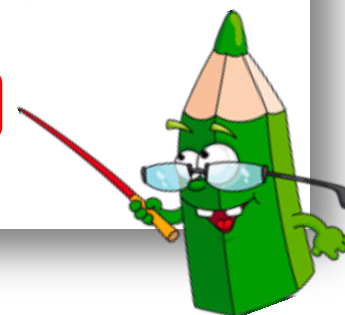
PROGRAMME  
EMPIR

FIELD  
Research Potential

STATUS  
in progress

CALL  
2017

DURATION  
2018-2021



### Large-scale dimensional measurements for geodesy

Short Name: GeoMetre, Project Number: 18SIB01



Windfarm construction site surveyor

#### COORDINATOR

Florian Pollinger (PTB)

#### PARTICIPATING EURAMET NMIS AND DIS

FGI-GG (Finland)

GUM (Poland)

INRIM (Italy)

LNE-LCM/CNAM (France)

MIKES (Finland)

NPL (United Kingdom)

PTB (Germany)

RISE (Sweden)

#### OTHER PARTICIPANTS

Bundesamt für Kartographie und Geodäsie (Germany)

Centre National de la Recherche Scientifique (France)

Frankfurt University of Applied Sciences (Germany)

Institut national de l'information géographique et forestière (France)

National Scientific Centre Institute of Metrology (Ukraine)

Observatoire de la Côte d'Azur (France)

Politechnika Warszawska (Poland)

Universitat Politècnica de València (Spain)

#### INFORMATION

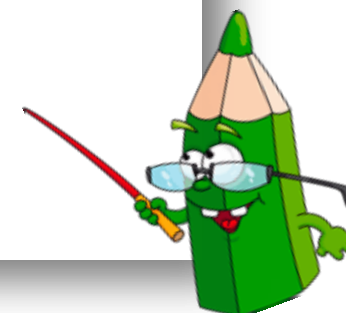
PROGRAMME  
EMPIR

FIELD  
SI Broader Scope

STATUS  
in progress

CALL  
2018

DURATION  
2019-2022





### Revision and extension of standards for test methods for LED lamps, luminaires and modules

Short Name: RevStdLED, Project Number: 19NRM02



RGB led lighting equipment

COORDINATOR  
Armin Sperling (PTB)

#### PARTICIPATING EURAMET NMIS AND DIS

Aalto (Finland)

IO-CSIC (Spain)

IPQ (Portugal)

LNE (France)

PTB (Germany)

UME (Turkey)

#### INFORMATION

PROGRAMME  
EMPIR

FIELD  
Normative

CALL  
2019

DURATION  
2020-2023

#### OTHER PARTICIPANTS

candelITEC S.L. (Spain)  
Danmarks Tekniske Universitet (Denmark)  
JETI Technische Instrumente GmbH (Germany)  
Karlsruher Institut fuer Technologie (Germany)  
National Metrology Institute of South Africa (South Africa)  
**National Scientific Centre Institute of Metrology (Ukraine)**  
OSRAM Opto Semiconductors GmbH (Germany)  
TechnoTeam Bildverarbeitung GmbH (Germany)





## Improvement of the realisation of the mass scale

Short Name: RealMass, Project Number: 19RPT02



Stainless steel calibration weight

COORDINATOR  
Jaroslav Zuda (CMI)

### PARTICIPATING EURAMET NMIS AND DIS

BEV (Austria)  
BIM (Bulgaria)  
CMI (Czech Republic)  
DMDM (Serbia)  
IMBiH (Bosnia and Herzegovina)  
INM-RO (Romania)  
INRIM (Italy)  
NSAI NML (Ireland)  
SMD (Belgium)

### OTHER PARTICIPANTS

Ministry of Economy - Bureau of  
Metrology (North Macedonia)  
National Scientific Centre Institute of  
Metrology (Ukraine)

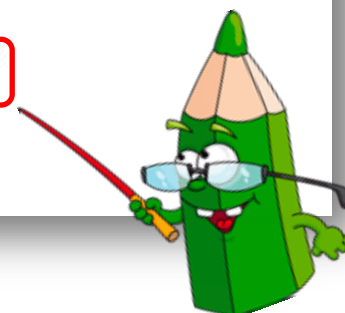
### INFORMATION

PROGRAMME  
EMPIR

FIELD  
Research Potential

CALL  
2019

DURATION  
2020-2023



## EMPIR 2021 Industry

**SRT-i04:** [Traceable industrial 3D roughness and dimensional measurement using optical 3D microscopy and optical distance sensors](#)

**SRT-i05:** [RF Measurements for future communications applications](#)

**SRT-i19:** [Metrology for emerging wireless technologies](#)

**SRT-i22:** [Enhanced metrology for innovative radon measurement and management](#)

**SRT-i28:** [Metrology for broadband impedance: bridging the LF-HF gap](#)

## EMPIR 2021 Fundamental

**SRT-f02:** [Two-species composite atomic clocks](#)

**SRT-f04:** [Next generation ultrastable lasers: reducing thermal noise limit and overcoming technical limitations with new materials and technologies](#)



