



COOMET activity  
in the field of thermometry  
(from 2014 to 2017)

*A.I. Pokhodun*  
*COOMET TC 1.10*



Germany



Cuba



Bulgaria



China



Bosnia and Herzegovina



Belarus



Azerbaijan



Georgia



DPR of Korea



Kazakhstan



Kyrgyzia



Lithuania



Moldova



Romania



Russia



Serbia



Tajikistan



Ukraine



Armenia



Turkey



Uzbekistan

# COOMET

# The main activities of the Technical Committee COOMET TC1.10

1. The organization and carrying out key comparisons.
2. Achievement of the international recognition of measuring capabilities of NMIs of the countries of participants of the COOMET
3. Organization of the reviewing of calibration and measuring capabilities of the COOMET national metrological institutes and interregional reviewing of CMCs of institutes of other regional metrological organizations
4. Development of recommendations concerning calibration of devices for temperature measurement

# Countries whose national institutions are actively involved in COOMET TC1.10 projects



Russia



Ukraine



Belarusia



Moldova



Kazakhstan



Turkey



Kyrgyzia



Azerbaijan

## TC1.10 projects participants 2014 - 2017



Germany



Slovakia



Cuba



Bosnia and Herzegovina



Uzbekistan



Georgia

# Reported COOMET key and supplementary comparisons (2014-2017)

1. **COOMET.T-K5** Realizations of the ITS-90 at 1084.62 °C  
(2014 – 2016)

**Participating institutes:** VNIIM (Russia), NSC IM (Ukraine)

2. **COOMET.T-S1** Comparison of type S thermocouples .  
(2014 – 2016)

**Participating institutes:** VNIIM (Russia), NSC IM (Ukraine)  
KazInMetr (Kazakhstan),



# COOMET key and supplementary comparisons in progress (2014-2017)

**1.COOMET.T-K3** “Realizations of the ITS-90 from 273.16 K to 933.47 K

## **Participating institutes:**

VNIIM (Russia), BelGIM (Belarus), KazInMetr (Kazakhstan),  
NSC IM (Ukraine), GEOSTM (Georgia), NIM (Moldova)

**2. COOMET 544/RU-a/11** “Regional Key Comparison Humidity Standards of Gases. Dew/frost Point Temperature from - 50 °C to +20 °C”

## **Participating institutes:**

VNIIFTRI(Russia), BelGIM (Belarus), KazInMetr (Kazakhstan),  
NSC IM (Ukraine), INM (Romania), BIM (Bulgaria), NIM(Moldova)

# COOMET key and supplementary comparisons in progress (2014-2017)

3. COOMET.T-S2 "Calibration of industrial platinum resistance thermometers in thermostats"

## **Participating institutes:**

KazInMetr (Kazakhstan), GEOSTM (Georgia), NIM(Moldova), SMS (Azerbaijan), CSM (Kyrgyzstan), IMBIH (Bosnia and Herzegovina), and UME (Turkey).

4. COOMET 704/RU/16) "Regional key comparisons of temperature national standards at the triple point of mercury"

## **Participating institutes:**

VNIIFTRI (Russia), NSC IM (Ukraine), BelGIM (Belarus), KazInMetr (Kazakhstan), SMU (Slovakia), and NIM(Moldova).

# Reported pilot comparisons of COOMET (2014-2017)

1. COOMET №623/Ru-a/13 “Comparisons of national standards of the unit of the energy of combustion using the solid and liquid fuels”

**Participating institutes:** VNIIM (Russia), BelGIM (Belarus).

2 COOMET 488/RU-a/10 “Comparisons of standard methods of measuring of the heat of combustion of natural gas”

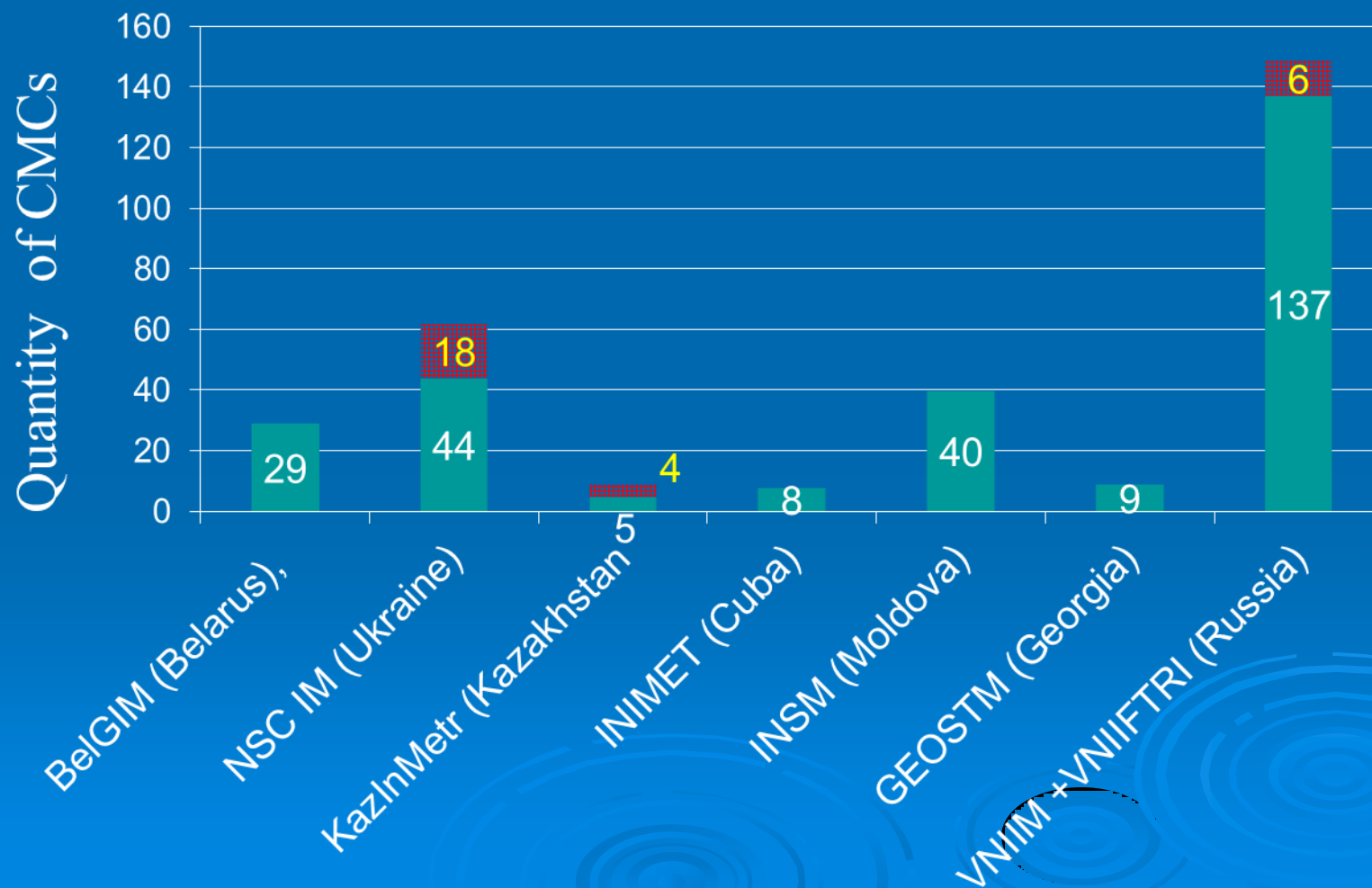
**Participating institutes:** VNIIM (Russia), BelGIM (Belarus),  
NSC “IM” (Ukraine).

3. COOMET 489 / RU-a / 10 "Regional comparisons of national standards of a combustion energy unit using samples of high-purity graphite"

**Participating institutes:** VNIIM (Russia), NSC “IM” (Ukraine)



# Dynamics of development of measurement capabilities of COOMET's metrological institutes in the period from 2014 to 2017



# Some additional activities of COOMET TC1.10

- At each meeting, the members of the technical committee discuss the state of work for the redefinition of the kelvin
- During the last 5 years representatives of enterprises producing instruments for measuring thermophysical quantities and means of their calibration are invited to the COOMET TC1.10 meetings.
- Representatives of these enterprises inform the members of the Technical Committee about their new developments and receive new information about the future requirements of metrology in the field of calibration of instruments for measuring thermophysical quantities

The Technical Committee meets once a  
year



# KAZAKHSTAN 2014



ЗАСЕДАНИЕ ТК 1.10

«ТЕРМОМЕТРИЯ И ТЕПЛОФИЗИКА»





# MOLDOVA 2015





# KYRGYZSTAN 2016





The next meeting will be held  
in Bosnia and Herzegovina (Sarajevo)  
in November 2017



THANK YOU  
FOR ATTENTION

