



# Measurement Methods Matrix

## Strategy Applied to Comparisons

- Matrix of generic groupings (and comparisons based on it) are a tool to support CMCs and advise on comparisons
- Matrix, assignation of difficulty, and “reasonable” uncertainties prepared by working groups (key comparisons, uncertainties) of CCRI(II) (radionuclide metrology)
- All CCRI(II) asked to contribute and evaluate
- CCRI(II) members had been asked to look again at radioactivity CMCs to see if there are comparisons to be added to support them
- Active participation in future comparisons will help fill out the matrix
- Matrix is a “living” document (i.e., changes are expected with time)

# Recent Comparisons with SIM Participation

## Activity

Institution	Comparison	Description	Other SIM participants	Time Frame
NRC	CCRI(II)-K2-Tc-99	Tc-99 in solution	NIST, LNMRI, CNEA	2012
NIST	CCRI(II)-S8	Cs-137, K-40, Sr-90 activity concentrations in IRMM-426 Bilberry Reference Material		2011
	CCRI(II)-S9	Cs-137 and K-40 in Rice Powder Reference Material	CNEA	2009
	CCRI(II)-S10	LASCE (measurement of source emission rate for the calibration of surface contamination monitors)		2012
	CCRI(II)-K2.Lu-177	Activity concentration of the same Lu-177 solution	LNMRI	2009
	SIR	Tl-201, I-131, <b>In-111</b>		2011/2012, <b>2013</b>
LNMRI/IRD	BIPM.RI(II)- K4.Tc-99m	Transfer instrument		<b>Scheduled 2014</b>
	SIR	Ge-68		2012
	Bilateral (with LNHB)	<b>Ge-68</b>		<b>2013</b>
CNEA	IAEA-TEL-20 <u>XX</u> -04 ALMERA	Proficiency test on the determination of natural and artificial radionuclides in soil and water		<u>2011</u> , <u>2012</u> , <u>2013</u>
	SIR	Co-60, Am-241, and Eu-152		2011
	BIPM.RI(II)- K4.Tc-99m	Transfer instrument		2012

# Planned Comparisons for SIM

## Activity

Institution	Description	Time Frame
NRC	Cs-134 to SIR	2013/2014
	Interest in hosting SIRTl	2014/2015
NIST	Proposed CCRI(II) Ge-68 comparison	2013/2014
	F-18 comparison among US clinics (transfer standard)	2014
	Mo-99 (delayed from 2013) to SIR	Feb. 2014
ININ	Several sources to SIR	2013
LNMRI	Co-60 and Cs-134 to SIR	2013
	Co-57, Cs-137, and Eu-152 to SIR	2014
CNEA	Proposed beta emitting sources (SIM)	2014