

Key comparison EUROMET.L-K7.2006

MEASURAND: Distance between the centre line position of the reference line and the centre line position of the measured line of the linescale

NOMINAL VALUES: 30 nominal values from 0.1 mm to 100 mm

TRANSFER STANDARDS: two linescales designated as "Scale A" and "Scale B"

x_i : result of measurement carried out by laboratory i (deviation from nominal value)

U_{Labj} : expanded uncertainty ($k = 2$) of x_i

Nominal length Lab i	0.1 mm		0.2 mm		0.3 mm		0.4 mm		0.5 mm		0.6 mm	
	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm
MIRS/UM-FS/LTM	20	122	0	122	0	123	20	123	30	123	30	123
MKEH	-119	200	-117	200	-14	200	-5	200	12	200	1	200
BEV	14	46	10	46	10	46	20	46	14	46	12	46
SMU	2	92	-34	92	-10	92	-13	92	-4	92	4	92
PTB	35	26	5	64	9	26	56	64	32	64	11	26
GUM	58	268	4	268	24	268	66	268	14	268	14	268
MIKES	20	50	1	23	-4	23	45	50	10	23	-2	23
LATMB	-200	1646	-200	1646	-200	1646	0	1646	200	1646	400	1646
NSAI NML	-80	1479	-46	1479	-186	1479	40	1479	-360	1479	-120	1479
BIM	24	156	0	156	1	156	2	156	41	156	-2	156
INM(RO)	40	202	60	202	60	202	40	202	10	202	10	202
DMDM	-17	202	-5	202	1	202	23	202	14	202	-25	202
HMI/FSB-LPMD	3	150	-1	150	3	150	14	150	26	151	8	151
NSC IM	36	40	12	40	-1	40	23	40	17	40	-204	40
CFI	28	28	1	28	-4	28	3	28	8	28	4	28
NPL	22	60	4	60	-3	60	3	60	3	60	0	60
METAS	21	16	1	16	-4	16	3	16	0	16	-2	16
NPL	31	60	-6	60	9	60	-5	60	-25	60	-3	60
METAS	28	16	-8	16	14	16	1	16	-10	16	3	16
EIM	29	1132	22	1132	48	1132	34	1132	20	1132	17	1132
INRIM	31	90	-4	90	21	90	7	90	-2	90	6	90
VSL	22	42	-13	42	10	42	-8	42	-15	42	-40	42
CEM	35	57	-12	57	15	57	9	57	-7	57	3	57
INMETRO	30	126	42	126	62	126	21	126	11	126	23	126
CENAM	0	276	0	276	0	276	0	276	0	276	-100	276
NIST	36	6	1	6	17	6	4	6	-11	6	5	6
NRC	27	80	-11	80	14	80	2	80	-14	80	5	80
NMC, A*STAR	50	230	0	230	0	230	25	230	0	230	0	230
NIM	11	98	-28	98	-12	98	-26	98	-33	98	-16	98
NPLI	26	472	-32	472	92	472	-144	472	-76	472	-114	472
NMIT	26	41	-9	41	19	41	21	41	5	41	4	41
VNIIM	27	20	-13	20	10	20	-5	20	-16	20	-1	20

Values rounded to the closest integer

Laboratory having measured Scale A (Group 1)

Laboratory having measured Scale B (Group 2)

NPL and METAS are the linking laboratories between the two groups

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x_i : result of measurement carried out by laboratory i

U_{Labj} : expanded uncertainty ($k = 2$) of x_i

Nominal length Lab i	0.7 mm		0.8 mm		0.9 mm		1 mm		5 mm		10 mm	
	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm
MIRS/UM-FS/LTM	30	124	70	124	50	124	70	124	20	134	0	146
MKEH	-49	200	28	200	-61	200	-45	200	-57	200	-91	200
BEV	15	46	38	46	24	46	50	46	-16	222	-11	222
SMU	3	92	-14	92	-8	92	-3	92	-26	92	-30	92
PTB	1	64	29	26	-6	26	29	26	5	26	6	26
GUM	-15	268	-47	268	-43	268	6	268	135	268	135	269
MIKES	1	23	25	23	-13	23	5	23	-4	23	-6	23
LATMB	300	1646	100	1646	100	1646	50	1646	420	1646	360	1646
NSAI NML	-60	1479	140	1479	340	1479	320	1479	240	1479	200	1479
BIM	3	156	11	156	3	156	21	156	-3	156	1	156
INM(RO)	20	202	10	202	20	202	-30	202	30	202	30	202
DMDM	-32	202	-65	202	-51	202	-42	202	-3639	202	-8219	202
HMI/FSB-LPMD	28	151	33	151	61	151	71	151	36	155	25	160
NSC IM	27	40	41	40	17	40	48	40	68	40	92	40
CFI	0	28	20	28	-8	28	20	28	-5	28	-6	28
NPL	2	60	19	60	-7	60	23	60	-3	60	0	60
METAS	-6	16	17	16	-6	16	25	16	-4	16	-5	16
NPL	-32	60	-3	60	-31	60	5	60	22	60	21	60
METAS	-18	16	15	16	-16	16	28	16	21	16	16	16
EIM	-39	1132	-50	1132	-35	1132	31	1132	-29	1132	-37	1132
INRIM	-20	90	17	90	-19	90	30	90	21	90	23	90
VSL	-22	42	20	42	-23	42	29	42	16	43	12	44
CEM	-13	57	33	57	1	57	27	57	40	57	60	57
INMETRO	16	126	23	126	-12	126	19	126	-4	126	-4	126
CENAM	-100	276	-100	276	-100	276	0	276	-100	276	0	278
NIST	-15	6	18	6	-11	6	30	6	21	7	25	7
NRC	-18	80	17	80	-14	80	32	80	22	80	23	80
NMC, A*STAR	0	230	0	230	25	230	75	230	-25	230	-50	230
NIM	-40	98	-23	98	-32	98	6	98	9	98	1	98
NPLI	43	472	78	472	-59	472	-96	472	12	472	-76	472
NMIT	-32	41	12	41	-7	41	40	41	21	41	16	42
VNIIIM	-24	20	8	20	-24	20	22	20	8	22	10	23

Values rounded to the closest integer

Laboratory having measured Scale A (Group 1)

Laboratory having measured Scale B (Group 2)

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x_i : result of measurement carried out by laboratory i

U_{Labj} : expanded uncertainty ($k = 2$) of x_i

Nominal length Lab i	15 mm		20 mm		25 mm		30 mm		35 mm		40 mm	
	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm
MIRS/UM-FS/LTM	0	158	0	170	-140	182	-180	194	-200	206	-210	218
MKEH	-50	200	-28	200	-263	200	-159	200	-89	200	-322	200
BEV	-64	222	-48	222	-180	222	-247	222	-255	222	-272	222
SMU	-21	92	-34	92	-83	92	-87	92	-90	92	-102	92
PTB	18	26	6	26	-134	26	-159	26	-150	26	-149	26
GUM	174	270	81	271	-66	273	-15	275	-126	277	-45	280
MIKES	-1	23	-9	23	-144	23	-171	23	-161	23	-159	23
LATMB	270	1646	510	1646	230	1646	970	1646	-150	1646	320	1646
NSAI NML	480	1479	400	1479	760	1479	340	1479	680	1479	900	1479
BIM	-21	156	-13	157	-154	157	-176	157	-150	158	-179	158
INM(RO)	10	202	-10	202	-40	202	-20	203	-20	203	-10	203
DMDM	-10837	202	-14582	202	-18717	202	-22493	202	-25865	202	-29161	203
HMI/FSB-LPMD	-7	165	14	170	-238	175	-276	180	-299	185	-167	190
NSC IM	116	40	162	41	62	41	124	41	134	42	162	42
CFI	-12	29	-3	29	-153	30	-174	30	-161	31	-168	32
NPL	-12	60	6	60	-147	60	-163	60	-156	60	-155	60
METAS	-17	16	-3	16	-154	16	-171	16	-164	17	-162	17
NPL	-21	60	23	60	-113	60	-151	60	-126	60	-130	60
METAS	-34	16	15	16	-133	16	-161	16	-136	17	-145	17
EIM	-75	1132	-126	1133	-269	1133	-422	1134	-396	1134	-522	1135
INRIM	-23	90	22	90	-126	91	-154	91	-131	91	-136	91
VSL	-29	45	28	46	-101	47	-142	47	-128	48	-112	49
CEM	16	57	43	57	-79	57	-131	58	-77	58	-79	58
INMETRO	-23	126	16	126	-69	126	-95	126	-84	126	-80	126
CENAM	0	282	-100	286	-300	292	0	299	-200	308	0	317
NIST	-19	8	27	8	-117	8	-146	8	-119	8	-119	8
NRC	-24	80	23	80	-115	81	-140	81	-121	81	-121	82
NMC, A*STAR	-75	230	0	230	-150	231	-150	231	-150	231	-150	232
NIM	-12	98	28	98	-91	98	-97	98	-75	98	-73	98
NPLI	-68	472	-23	472	-344	472	-261	472	-176	473	-212	473
NMIT	-20	44	1	46	-120	48	-151	51	-137	55	-128	58
VNIIM	-38	25	6	26	-140	28	-167	29	-146	31	-151	32

Values rounded to the closest integer

Laboratory having measured Scale A (Group 1)

Laboratory having measured Scale B (Group 2)

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x_i : result of measurement carried out by laboratory i

U_{Labj} : expanded uncertainty ($k = 2$) of x_i

Nominal length Lab i	45 mm		50 mm		55 mm		60 mm		65 mm		70 mm	
	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm
MIRS/UM-FS/LTM	-290	230	-220	242	-270	254	-310	266	-250	278	-280	290
MKEH	-282	200	-261	200	-351	200	-318	200	-232	200	-329	200
BEV	-351	222	-290	222	-342	222	-418	222	-377	222	-444	222
SMU	-109	92	-107	92	-124	93	-142	93	-144	93	-162	93
PTB	-201	26	-181	26	-202	26	-244	26	-200	26	-236	26
GUM	-236	283	-259	286	-312	290	-422	294	-335	298	-479	302
MIKES	-220	23	-195	23	-210	23	-257	23	-213	23	-245	23
LATMB	140	1646	670	1646	120	1646	580	1646	-220	1646	-110	1646
NSAI NML	760	1479	920	1479	880	1479	1600	1479	1860	1479	1780	1479
BIM	-231	159	-225	160	-243	160	-294	161	-249	162	-282	163
INM(RO)	-50	203	-50	204	-20	204	-20	205	-40	205	-40	206
DMDM	-33156	203	-37149	203	-40400	203	-43905	203	-48229	204	-50953	204
HMI/FSB-LPMD	-200	195	-168	200	-222	205	-266	210	-201	215	-255	220
NSC IM	-69	43	221	43	214	44	209	45	236	46	230	47
CFI	-229	33	-213	34	-218	35	-276	36	-224	38	-259	39
NPL	-211	60	-191	60	-211	60	-258	60	-218	60	-241	60
METAS	-216	17	-196	17	-214	18	-260	18	-220	18	-246	19
NPL	-183	60	-112	60	-138	60	-153	60	-108	60	-129	60
METAS	-194	17	-126	17	-151	18	-171	18	-131	18	-155	19
EIM	-582	1136	-561	1136	-547	1137	-547	1138	-474	1139	-520	1141
INRIM	-180	92	-106	92	-138	93	-156	93	-117	94	-143	94
VSL	-159	50	-59	51	-101	52	-124	53	-84	54	-89	55
CEM	-151	58	-101	59	-128	59	-134	60	-113	60	-128	61
INMETRO	-98	126	-84	126	-87	126	-77	184	-140	184	-77	184
CENAM	100	327	-100	338	-100	349	-100	362	-200	374	-300	388
NIST	-183	9	-111	9	-132	9	-153	10	-111	10	-129	10
NRC	-172	82	-100	82	-128	83	-146	84	-107	84	-133	85
NMC, A*STAR	-200	232	-150	233	-175	233	-200	234	-175	234	-175	235
NIM	-116	98	-32	98	-53	98	-48	98	-5	98	-27	98
NPLI	-238	473	-163	473	-252	473	-271	474	-129	474	-56	474
NMIT	-192	62	-122	66	-148	70	-151	74	-131	79	-206	83
VNIIIM	-202	34	-133	35	-157	37	-177	38	-138	40	-161	41

Values rounded to the closest integer

Laboratory having measured Scale A (Group 1)

Laboratory having measured Scale B (Group 2)

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Nominal length Lab i	75 mm		80 mm		85 mm		90 mm		95 mm		100 mm	
	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm	x_i / nm	U_{Labj} / nm
MIRS/UM-FS/LTM	-290	302	-280	314	-320	326	-510	338	-420	350	-440	362
MKEH	-559	200	-456	201	-531	201	-639	201	-466	201	-486	201
BEV	-465	222	-475	222	-516	222	-657	222	-615	222	-709	222
SMU	-191	93	-201	93	-197	93	-222	94	-211	94	-250	94
PTB	-274	26	-231	26	-231	26	-410	26	-353	26	-388	26
GUM	-451	307	-533	312	-562	317	-605	323	-551	329	-588	334
MIKES	-284	24	-235	24	-292	50	-399	50	-342	50	-388	24
LATMB	250	1646	-230	1646	-950	1646	-1420	1646	-1210	1646	-1720	1646
NSAI NML	2500	1479	2020	1479	2060	1479	2340	1479	2840	1479	2840	1479
BIM	-324	164	-289	165	-313	166	-485	168	-423	169	-443	170
INM(RO)	-50	206	-40	207	-20	207	-30	208	-60	209	-30	209
DMDM	-55369	204	-58869	204	-62248	205	-66039	205	-69011	205	-73279	206
HMI/FSB-LPMD	-310	225	-262	230	-310	235	-391	240	-321	245	-312	250
NSC IM	187	47	235	48	226	49	74	50	182	51	135	52
CFI	-295	40	-259	42	-280	43	-459	44	-382	46	-412	48
NPL	-279	60	-240	60	-257	60	-424	60	-362	60	-382	60
METAS	-280	19	-242	19	-263	20	-434	20	-365	21	-387	21
NPL	-150	60	-106	60	-126	60	-312	60	-251	60	-246	60
METAS	-170	19	-145	19	-158	20	-340	20	-289	21	-279	21
EIM	-541	1142	-505	1143	-570	1145	-641	1146	-562	1148	-497	1150
INRIM	-151	95	-123	96	-139	96	-315	97	-262	98	-255	98
VSL	-112	56	-99	56	-109	57	-273	58	-216	59	-187	60
CEM	-156	61	-105	62	-144	62	-307	63	-257	64	-261	64
INMETRO	-80	184	9	184	-59	184	-308	184	-263	184	-342	184
CENAM	-400	402	-400	416	-400	431	-500	446	-500	462	-500	477
NIST	-146	11	-125	11	-125	11	-313	12	-266	12	-250	12
NRC	-144	85	-118	86	-125	87	-313	88	-262	89	-257	89
NMC, A*STAR	-225	236	-150	237	-162	238	-338	238	-238	239	-212	240
NIM	-31	98	8	98	-2	98	-167	98	-115	98	-101	98
NPLI	-106	474	-190	475	-294	475	-364	476	-592	476	-713	476
NMIT	-158	88	-125	92	-152	97	-314	102	-279	106	-259	111
VNIIM	-179	43	-147	44	-161	46	-345	47	-292	49	-286	50

Values rounded to the closest integer

Laboratory having measured Scale A (Group 1)

Laboratory having measured Scale B (Group 2)


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 Laboratory having measured Scale A (Group 1)

 Laboratory having measured Scale B (Group 2)

NPL and METAS are the linking laboratories between the two groups. The values retained for NPL and METAS are those taken at the end and at the beginning, respectively, of the circulation inside one group. Other measurements at NPL and METAS were used to assess the stability of the standards.

Lab <i>i</i> ↓	Date of measurements
MIRS/UM-FS/LTM	Jul 2006
MKEH	Oct 2006
BEV	Nov 2006
SMU	Dec 2006
PTB	Jan 2007
GUM	Feb 2007
MIKES	Mar 2007
LATMB	May 2007
NSAI NML	Jun 2007
BIM	Jul 2007
INM(RO)	Aug 2007
DMDM	Oct 2007
HMI/FSB-LPMD	Dec 2007
NSC IM	Jan 2008
CMI	Mar 2008
NPL	Jun 2008
METAS	Aug 2006
NPL	Sep 2008
METAS	Aug 2006
EIM	Nov 2006
INRIM	Dec 2006
VSL	Jan 2007
CEM	Feb 2007
INMETRO	May 2007
CENAM	Jun 2007
NIST	Jul - Aug 2007
NRC	Jul 2008
NMC, A*STAR	Aug - Sept 2007
NIM	Sept - Oct 2007
NPLI	Oct 2007 - Feb 2008
NMIT	Mar - Apr 2008
VNIIIM	Dec 2008

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For each nominal value and for each linescale, the reference value, x_R , and its combined uncertainty, u_R , are obtained from the weighted mean of the participant results with outliers excluded, as explained in Chapter 7 of the Final Report (the list of laboratories excluded from the calculation of the reference values is given in Table 11 on page 34 of the same Final Report). The linkage between the two groups is explained in Section 8.4 of the Final Report.

Nominal length Scale A	0.1 mm	0.2 mm	0.3 mm	0.4 mm	0.5 mm	0.6 mm	0.7 mm	0.8 mm
x_R / nm	24.3	2.0	-0.4	13.4	8.8	2.9	2.9	23.9
u_R / nm	7.2	7.1	6.7	7.7	7.1	7.0	7.1	6.7
Nominal length Scale A	0.9 mm	1 mm	5 mm	10 mm	15 mm	20 mm	25 mm	30 mm
x_R / nm	-2.7	24.3	4.6	5.8	-5.1	-2.8	-145.3	-165.8
u_R / nm	6.7	6.7	7.0	7.0	7.4	7.4	7.5	7.5
Nominal length Scale A	35 mm	40 mm	45 mm	50 mm	55 mm	60 mm	65 mm	70 mm
x_R / nm	-157.3	-157.5	-212.8	-192.2	-209.1	-255.1	-212.4	-243.2
u_R / nm	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3
Nominal length Scale A	75 mm	80 mm	85 mm	90 mm	95 mm	100 mm		
x_R / nm	-281.2	-241.3	-256.3	-429.0	-362.1	-386.2		
u_R / nm	8.4	8.6	9.4	9.7	9.9	9.1		

Nominal length Scale B	0.1 mm	0.2 mm	0.3 mm	0.4 mm	0.5 mm	0.6 mm	0.7 mm	0.8 mm
x_R / nm	29.9	-6.4	14.2	1.7	-11.3	-0.6	-20.2	14.2
u_R / nm	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
Nominal length Scale B	0.9 mm	1 mm	5 mm	10 mm	15 mm	20 mm	25 mm	30 mm
x_R / nm	-15.9	27.3	18.3	19.3	-24.8	19.4	-120.6	-150.2
u_R / nm	6.2	6.2	6.3	6.4	6.5	6.5	6.6	6.7
Nominal length Scale B	35 mm	40 mm	45 mm	50 mm	55 mm	60 mm	65 mm	70 mm
x_R / nm	-125.9	-127.0	-182.1	-111.6	-136.1	-154.4	-116.0	-136.8
u_R / nm	6.9	7.0	7.1	7.2	7.4	7.5	7.7	7.8
Nominal length Scale B	75 mm	80 mm	85 mm	90 mm	95 mm	100 mm		
x_R / nm	-151.9	-124.2	-138.7	-316.4	-265.7	-259.0		
u_R / nm	8.0	8.1	8.3	8.4	8.6	8.8		

For each nominal value, the degree of equivalence of each laboratory i with respect to the reference value is given by a pair of terms: $D_i = x_i - x_R$, and U_i , its expanded uncertainty ($k = 2$).

Pair-wise degrees of equivalence are not computed for this key comparison.

Key comparison EUROMET.L-K7.2006

MEASURAND: Distance between the centre line position of the reference line and the centre line position of the measured line of the linescale

NOMINAL VALUES: 30 nominal values from 0.1 mm to 100 mm

TRANSFER STANDARDS: two linescales designated as "Scale A" and "Scale B"

Degrees of equivalence relative to the key comparison reference value

Nominal length Lab <i>i</i>	0.1 mm		0.2 mm		0.3 mm		0.4 mm		0.5 mm		0.6 mm	
	D_i / nm	U_i / nm	D_i / nm	U_i / nm	D_i / nm	U_i / nm	D_i / nm	U_i / nm	D_i / nm	U_i / nm	D_i / nm	U_i / nm
MIRS/UM-FS/LTM	-4.3	123.3	-2.0	123.5	0.4	123.9	6.6	123.9	21.2	124.3	27.1	124.5
MKEH	-143.3	200.7	-119.0	200.7	-13.6	200.7	-18.4	200.6	3.2	200.7	-1.9	200.7
BEV	-10.3	48.8	8.0	48.8	10.4	49.0	6.6	48.4	5.2	48.8	9.1	48.8
SMU	-22.3	93.4	-36.0	93.4	-9.6	93.5	-26.4	93.2	-12.8	93.4	1.1	93.5
PTB	10.9	30.6	3.4	66.0	9.4	31.0	42.1	65.8	23.2	66.0	7.6	30.8
GUM	33.7	268.5	2.0	268.5	24.4	268.5	52.6	268.4	5.2	268.5	11.1	268.5
MIKES	-4.3	52.6	-1.0	27.8	-3.6	28.2	31.6	52.2	1.2	27.8	-4.9	27.9
LATMB	-224.3	1646.1	-202.0	1646.1	-199.6	1646.1	-13.4	1646.1	191.2	1646.1	397.1	1646.1
NSAI NML	-104.3	1479.2	-48.0	1479.2	-185.6	1479.3	26.6	1479.2	-368.8	1479.2	-122.9	1479.3
BIM	-0.3	156.8	-2.0	156.8	1.4	156.9	-11.4	156.7	32.2	156.8	-4.9	156.9
INM(RO)	15.7	202.6	58.0	202.6	60.4	202.7	26.6	202.6	1.2	202.7	7.1	202.7
DMDM	-41.6	202.6	-7.3	202.6	1.8	202.7	9.7	202.6	5.1	202.7	-27.6	202.7
HMI/FSB-LPMD	-21.3	151.0	-3.0	151.1	3.4	151.3	0.6	151.2	17.2	151.4	5.1	151.5
NSC IM	11.7	43.1	10.0	43.2	-0.6	43.4	9.6	42.8	8.2	43.2	-206.9	43.2
CMI	3.7	32.3	-1.0	32.4	-3.6	32.7	-10.4	31.8	-0.8	32.4	1.1	32.5
NPL	-2.3	62.1	2.2	62.2	-2.8	62.3	-10.0	61.9	-5.8	62.2	-3.2	62.2
METAS	-3.3	22.6	-1.0	22.6	-3.6	23.2	-10.4	21.9	-8.8	22.6	-4.9	22.8
NPL	1.0	62.5	0.5	62.5	-5.6	62.5	-6.8	62.5	-13.2	62.5	-2.6	62.5
METAS	-1.9	23.7	-1.6	23.7	-0.2	23.7	-0.7	23.7	1.3	23.7	3.6	23.7
EIM	-0.9	1132.1	28.4	1132.1	33.8	1132.1	32.3	1132.1	31.3	1132.1	17.6	1132.1
INRIM	1.1	91.7	2.4	91.7	6.8	91.7	5.3	91.7	9.3	91.7	6.6	91.7
VSL	-7.9	45.6	-6.6	45.6	-4.2	45.6	-9.7	45.6	-3.7	45.6	-39.4	45.6
CEM	5.1	59.5	-5.6	59.5	0.8	59.5	7.3	59.5	4.3	59.5	3.6	59.5
INMETRO	0.1	127.2	48.4	127.2	47.8	127.2	19.3	127.2	22.3	127.2	23.6	127.2
CENAM	-29.9	276.2	6.4	276.2	-14.2	276.2	-1.7	276.2	11.3	276.2	-99.4	276.2
NIST	6.1	18.7	7.6	18.7	2.5	18.7	2.7	18.7	0.1	18.7	5.5	18.7
NRC	-3.1	81.9	-4.9	81.9	-0.5	81.9	0.6	81.9	-2.4	81.9	5.9	81.9
NMC, A*STAR	20.1	230.7	6.4	230.7	-14.2	230.7	23.3	230.7	11.3	230.7	0.6	230.7
NIM	-18.9	99.6	-21.6	99.6	-26.2	99.6	-27.7	99.6	-21.7	99.6	-15.4	99.6
NPLI	-3.9	472.3	-25.6	472.3	77.8	472.3	-145.7	472.3	-64.7	472.3	-113.4	472.3
NMIT	-4.1	44.6	-2.4	44.6	4.5	44.6	18.7	44.6	16.4	44.6	4.6	44.6
VNIIM	-2.9	26.7	-6.6	26.7	-4.2	26.7	-6.7	26.7	-4.7	26.8	-0.4	26.8

Laboratory having measured Scale A (Group 1)
 Laboratory having measured Scale B (Group 2)
NPL and METAS are the linking laboratories between the two groups

Key comparison EUROMET.L-K7.2006

MEASURAND: Distance between the centre line position of the reference line and the centre line position of the measured line of the linescale

NOMINAL VALUES: 30 nominal values from 0.1 mm to 100 mm

TRANSFER STANDARDS: two linescales designated as "Scale A" and "Scale B"

Degrees of equivalence relative to the key comparison reference value

Nominal length Lab <i>i</i>	0.7 mm		0.8 mm		0.9 mm		1 mm		5 mm		10 mm	
	D_i / nm	U_i / nm	D_i / nm	U_i / nm	D_i / nm	U_i / nm	D_i / nm	U_i / nm	D_i / nm	U_i / nm	D_i / nm	U_i / nm
MIRS/UM-FS/LTM	27.1	124.7	46.1	125.1	52.7	125.3	45.7	125.5	15.4	135.0	-5.8	146.9
MKEH	-51.9	200.7	4.1	200.7	-58.3	200.7	-69.3	200.7	-61.6	200.7	-96.8	200.7
BEV	12.1	48.8	14.1	49.0	26.7	49.0	25.7	49.0	-20.6	222.6	-16.8	222.6
SMU	0.1	93.4	-37.9	93.5	-5.3	93.5	-27.3	93.5	-30.6	93.5	-35.8	93.5
PTB	-2.1	66.0	4.7	31.0	-3.4	31.0	4.8	31.0	0.8	30.8	0.2	30.8
GUM	-17.9	268.5	-70.9	268.5	-40.3	268.5	-18.3	268.5	130.4	268.7	129.2	269.3
MIKES	-1.9	27.8	1.1	28.2	-10.3	28.2	-19.3	28.3	-8.6	28.0	-11.8	28.0
LATMB	297.1	1646.1	76.1	1646.1	102.7	1646.1	25.7	1646.1	415.4	1646.1	354.2	1646.1
NSAI NML	-62.9	1479.2	116.1	1479.3	342.7	1479.3	295.7	1479.3	235.4	1479.3	194.2	1479.3
BIM	0.1	156.8	-12.9	156.9	5.7	156.9	-3.3	156.9	-7.6	156.9	-4.8	157.0
INM(RO)	17.1	202.7	-13.9	202.7	22.7	202.7	-54.3	202.7	25.4	202.7	24.2	202.8
DMDM	-34.7	202.7	-88.7	202.7	-48.2	202.7	-66.3	202.7	-3644	202.7	-8225	202.7
HMI/FSB-LPMD	25.1	151.6	9.1	151.7	63.7	151.8	46.7	151.9	31.4	155.9	19.2	160.9
NSC IM	24.1	43.2	17.1	43.4	19.7	43.4	23.7	43.4	63.4	43.3	86.2	43.4
CMI	-2.9	32.4	-3.9	32.7	-5.3	32.7	-4.3	32.7	-9.6	32.6	-11.8	32.8
NPL	-1.4	62.2	-5.0	62.3	-4.2	62.3	-1.8	62.3	-7.9	62.2	-6.1	62.2
METAS	-8.9	22.7	-6.9	23.2	-3.3	23.2	0.7	23.2	-8.6	22.9	-10.8	22.9
NPL	-12.0	62.5	-17.1	62.5	-14.8	62.5	-22.2	62.5	3.7	62.5	1.9	62.5
METAS	2.2	23.7	0.8	23.7	-0.1	23.7	0.7	23.7	2.7	23.6	-3.3	23.6
EIM	-18.8	1132.1	-64.2	1132.1	-19.1	1132.1	3.7	1132.1	-47.3	1132.2	-56.3	1132.3
INRIM	0.2	91.7	2.8	91.7	-3.1	91.7	2.7	91.7	2.7	91.7	3.7	91.8
VSL	-1.8	45.7	5.8	45.7	-7.1	45.7	1.7	45.7	-2.3	46.4	-7.3	47.2
CEM	7.2	59.5	18.8	59.5	16.9	59.5	-0.3	59.5	21.7	59.5	40.7	59.6
INMETRO	36.2	127.2	8.8	127.2	3.9	127.2	-8.3	127.2	-22.3	127.2	-23.3	127.2
CENAM	-79.8	276.2	-114.2	276.2	-84.1	276.2	-27.3	276.2	-118.3	276.9	-19.3	278.9
NIST	5.1	18.7	4.0	18.7	4.6	18.7	3.0	18.7	2.4	19.1	5.6	19.0
NRC	2.6	81.9	3.2	81.9	2.3	81.9	4.5	81.9	3.1	81.9	3.6	82.0
NMC, A*STAR	20.2	230.7	-14.2	230.7	40.9	230.7	47.7	230.7	-43.3	230.7	-69.3	230.8
NIM	-19.8	99.6	-37.2	99.6	-16.1	99.6	-21.3	99.6	-9.3	99.6	-18.3	99.6
NPLI	63.2	472.3	63.8	472.3	-43.1	472.3	-123.3	472.3	-6.3	472.3	-95.3	472.4
NMIT	-12.0	44.6	-2.4	44.6	9.2	44.6	12.6	44.6	2.4	44.9	-3.2	45.8
VNIIM	-3.8	26.8	-6.2	26.8	-8.1	26.9	-5.3	26.9	-10.3	27.8	-9.3	28.9

Laboratory having measured Scale A (Group 1)
 Laboratory having measured Scale B (Group 2)
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Key comparison EUROMET.L-K7.2006

MEASURAND: Distance between the centre line position of the reference line and the centre line position of the measured line of the linescale

NOMINAL VALUES: 30 nominal values from 0.1 mm to 100 mm

TRANSFER STANDARDS: two linescales designated as "Scale A" and "Scale B"

Degrees of equivalence relative to the key comparison reference value

Nominal length Lab <i>i</i>	15 mm		20 mm		25 mm		30 mm		35 mm		40 mm	
	D_i / nm	U_i / nm	D_i / nm	U_i / nm	D_i / nm	U_i / nm	D_i / nm	U_i / nm	D_i / nm	U_i / nm	D_i / nm	U_i / nm
MIRS/UM-FS/LTM	5.1	158.8	2.8	170.8	5.3	182.7	-14.2	194.7	-42.7	206.7	-52.5	218.7
MKEH	-44.9	200.7	-25.2	200.7	-117.7	200.7	6.8	200.8	68.3	200.8	-164.5	200.8
BEV	-58.9	222.6	-45.2	222.6	-34.7	222.6	-81.2	222.6	-97.7	222.6	-114.5	222.6
SMU	-15.9	93.4	-31.2	93.5	62.3	93.5	78.8	93.6	67.3	93.7	55.5	93.8
PTB	22.7	30.5	8.5	30.6	11.2	30.7	7.3	30.7	7.6	30.9	8.4	31.0
GUM	179.1	270.1	83.8	271.4	79.3	273.1	150.8	275.1	31.3	277.5	112.5	280.2
MIKES	4.1	27.7	-6.2	27.8	1.3	27.9	-5.2	28.1	-3.7	28.2	-1.5	28.4
LATMB	275.1	1646.1	512.8	1646.1	375.3	1646.1	1135.8	1646.1	7.3	1646.1	477.5	1646.1
NSAI NML	485.1	1479.2	402.8	1479.2	905.3	1479.2	505.8	1479.3	837.3	1479.3	1057.5	1479.3
BIM	-15.9	157.2	-10.2	157.4	-8.7	157.8	-10.2	158.2	7.3	158.7	-21.5	159.2
INM(RO)	15.1	202.8	-7.2	202.9	105.3	203.1	145.8	203.3	137.3	203.6	147.5	203.9
DMDM	-10832	202.7	-14579	202.8	-18572	202.9	-22327	203.0	-25707	203.1	-29004	203.3
HMI/FSB-LPMD	-1.9	165.8	16.8	170.8	-92.7	175.8	-110.2	180.7	-141.7	185.7	-9.5	190.7
NSC IM	121.1	43.4	164.8	43.7	207.3	44.0	289.8	44.4	291.3	44.9	319.5	45.5
CMI	-6.9	32.8	-0.2	33.2	-7.7	33.8	-8.2	34.4	-3.7	35.2	-10.5	36.1
NPL	-6.9	62.1	8.5	62.1	-1.9	62.2	2.6	62.2	1.7	62.3	2.5	62.3
METAS	-11.9	22.6	-0.2	22.7	-8.7	22.9	-5.2	23.2	-6.7	23.4	-4.5	23.7
NPL	4.1	62.5	3.3	62.5	7.3	62.5	-0.4	62.6	-0.3	62.6	-2.5	62.7
METAS	-9.2	23.7	-4.4	23.8	-12.4	23.9	-10.8	24.1	-10.1	24.3	-18.0	24.6
EIM	-50.2	1132.5	-145.4	1132.8	-148.4	1133.2	-271.8	1133.7	-270.1	1134.3	-395.0	1135.0
INRIM	1.8	91.9	2.6	92.0	-5.4	92.3	-3.8	92.5	-5.1	92.8	-9.0	93.2
VSL	-4.2	48.0	8.6	48.9	19.6	49.7	8.2	50.6	-2.1	51.5	15.0	52.4
CEM	40.8	59.7	23.6	59.8	41.6	60.0	19.2	60.2	48.9	60.5	48.0	60.8
INMETRO	1.8	127.2	-3.4	127.2	51.6	127.2	55.2	127.2	41.9	127.3	47.0	127.3
CENAM	24.8	282.3	-119.4	287.0	-179.4	292.9	150.2	300.0	-74.1	308.1	127.0	317.2
NIST	5.4	19.1	7.9	19.2	4.0	19.3	4.4	19.4	6.6	19.7	7.7	19.9
NRC	0.6	82.1	3.7	82.3	5.6	82.5	10.3	82.8	5.1	83.2	5.9	83.6
NMC, A*STAR	-50.2	230.9	-19.4	231.1	-29.4	231.3	0.2	231.6	-24.1	232.0	-23.0	232.4
NIM	12.8	99.6	8.6	99.6	29.6	99.6	53.2	99.6	50.9	99.6	54.0	99.6
NPLI	-43.2	472.4	-42.4	472.5	-223.4	472.6	-110.8	472.7	-50.1	472.9	-85.0	473.0
NMIT	5.2	47.2	-18.1	49.2	1.1	51.6	-1.1	54.4	-11.2	57.5	-0.9	61.0
VNIIM	-13.2	30.1	-13.4	31.4	-19.4	32.7	-16.8	34.0	-20.1	35.3	-24.0	36.7

Laboratory having measured Scale A (Group 1)
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Key comparison EUROMET.L-K7.2006

MEASURAND: Distance between the centre line position of the reference line and the centre line position of the measured line of the linescale

NOMINAL VALUES: 30 nominal values from 0.1 mm to 100 mm

TRANSFER STANDARDS: two linescales designated as "Scale A" and "Scale B"

Degrees of equivalence relative to the key comparison reference value

Nominal length Lab <i>i</i>	45 mm		50 mm		55 mm		60 mm		65 mm		70 mm	
	D_i / nm	U_i / nm	D_i / nm	U_i / nm	D_i / nm	U_i / nm	D_i / nm	U_i / nm	D_i / nm	U_i / nm	D_i / nm	U_i / nm
MIRS/UM-FS/LTM	-77.2	230.6	-27.8	242.6	-60.9	254.6	-54.9	266.6	-37.6	278.6	-36.8	290.6
MKEH	-69.2	200.9	-68.8	201.0	-141.9	201.0	-62.9	201.1	-19.6	201.2	-85.8	201.3
BEV	-138.2	222.7	-97.8	222.7	-132.9	222.7	-162.9	222.7	-164.6	222.8	-200.8	222.8
SMU	103.8	94.0	85.2	94.1	85.1	94.2	113.1	94.4	68.4	94.6	81.2	94.8
PTB	11.9	31.1	11.6	31.3	7.6	31.4	10.9	31.6	12.0	31.8	6.8	32.0
GUM	-23.2	283.2	-66.8	286.6	-102.9	290.2	-166.9	294.2	-122.6	298.4	-235.8	302.9
MIKES	-7.2	28.6	-2.8	28.8	-0.9	29.1	-1.9	29.4	-0.6	29.7	-1.8	30.0
LATMB	352.8	1646.1	862.2	1646.1	329.1	1646.1	835.1	1646.1	-7.6	1646.1	133.2	1646.1
NSAI NML	972.8	1479.3	1112.2	1479.3	1089.1	1479.3	1855.1	1479.3	2072.4	1479.3	2023.2	1479.3
BIM	-18.2	159.9	-32.8	160.6	-33.9	161.4	-38.9	162.2	-36.6	163.2	-38.8	164.2
INM(RO)	162.8	204.2	142.2	204.6	189.1	205.0	235.1	205.4	172.4	205.9	203.2	206.4
DMDM	-32943	203.4	-36957	203.6	-40191	203.8	-43650	204.1	-48017	204.3	-50709	204.6
HMI/FSB-LPMD	12.8	195.7	24.2	200.8	-12.9	205.8	-10.9	210.8	11.4	215.8	-11.8	220.8
NSC IM	143.8	46.1	413.2	46.8	423.1	47.6	464.1	48.4	448.4	49.2	473.2	50.2
CMI	-16.2	37.1	-20.8	38.1	-8.9	39.3	-20.9	40.5	-11.6	41.7	-15.8	43.1
NPL	2.1	62.4	1.6	62.5	-1.3	62.5	-2.3	62.6	-5.6	62.7	2.2	62.9
METAS	-3.2	24.1	-3.8	24.5	-4.9	24.9	-4.9	25.3	-7.6	25.8	-2.8	26.3
NPL	-0.9	62.7	-0.8	62.8	-1.4	62.8	1.9	62.9	8.2	63.0	8.3	63.1
METAS	-11.9	24.9	-14.4	25.3	-14.9	25.6	-16.6	26.0	-15.0	26.5	-18.2	27.0
EIM	-399.9	1135.7	-449.4	1136.6	-410.9	1137.5	-392.6	1138.5	-358.0	1139.6	-383.2	1140.8
INRIM	2.1	93.6	5.6	94.0	-1.9	94.5	-1.6	95.1	-1.0	95.6	-6.2	96.3
VSL	23.1	53.3	52.6	54.2	35.1	55.2	30.4	56.1	32.0	57.0	47.8	58.0
CEM	31.1	61.2	10.6	61.6	8.1	62.1	20.4	62.6	3.0	63.1	8.8	63.7
INMETRO	84.1	127.3	27.6	127.3	49.1	127.4	77.4	185.0	-24.0	185.0	59.8	185.0
CENAM	282.1	327.2	11.6	338.1	36.1	349.7	54.4	362.0	-84.0	374.9	-163.2	388.4
NIST	-1.0	20.2	0.8	20.5	4.4	20.8	1.3	21.2	4.8	21.6	7.8	22.1
NRC	10.6	84.0	11.9	84.5	8.6	85.0	8.8	85.6	9.1	86.3	3.8	87.0
NMC, A*STAR	-17.9	232.9	-38.4	233.4	-38.9	233.9	-45.6	234.6	-59.0	235.2	-38.2	236.0
NIM	66.1	99.7	79.6	99.7	83.1	99.8	106.4	99.8	111.0	99.9	109.8	99.9
NPLI	-55.9	473.2	-51.4	473.4	-115.9	473.7	-116.6	473.9	-13.0	474.2	80.8	474.5
NMIT	-9.9	64.6	-10.3	68.5	-11.6	72.6	3.5	76.7	-15.1	81.0	-69.2	85.5
VNIIM	-19.9	38.1	-21.4	39.6	-20.9	41.0	-22.6	42.5	-22.0	43.9	-24.2	45.4

Laboratory having measured Scale A (Group 1)
 Laboratory having measured Scale B (Group 2)
NPL and METAS are the linking laboratories between the two groups

Key comparison EUROMET.L-K7.2006

MEASURAND: Distance between the centre line position of the reference line and the centre line position of the measured line of the linescale

NOMINAL VALUES: 30 nominal values from 0.1 mm to 100 mm

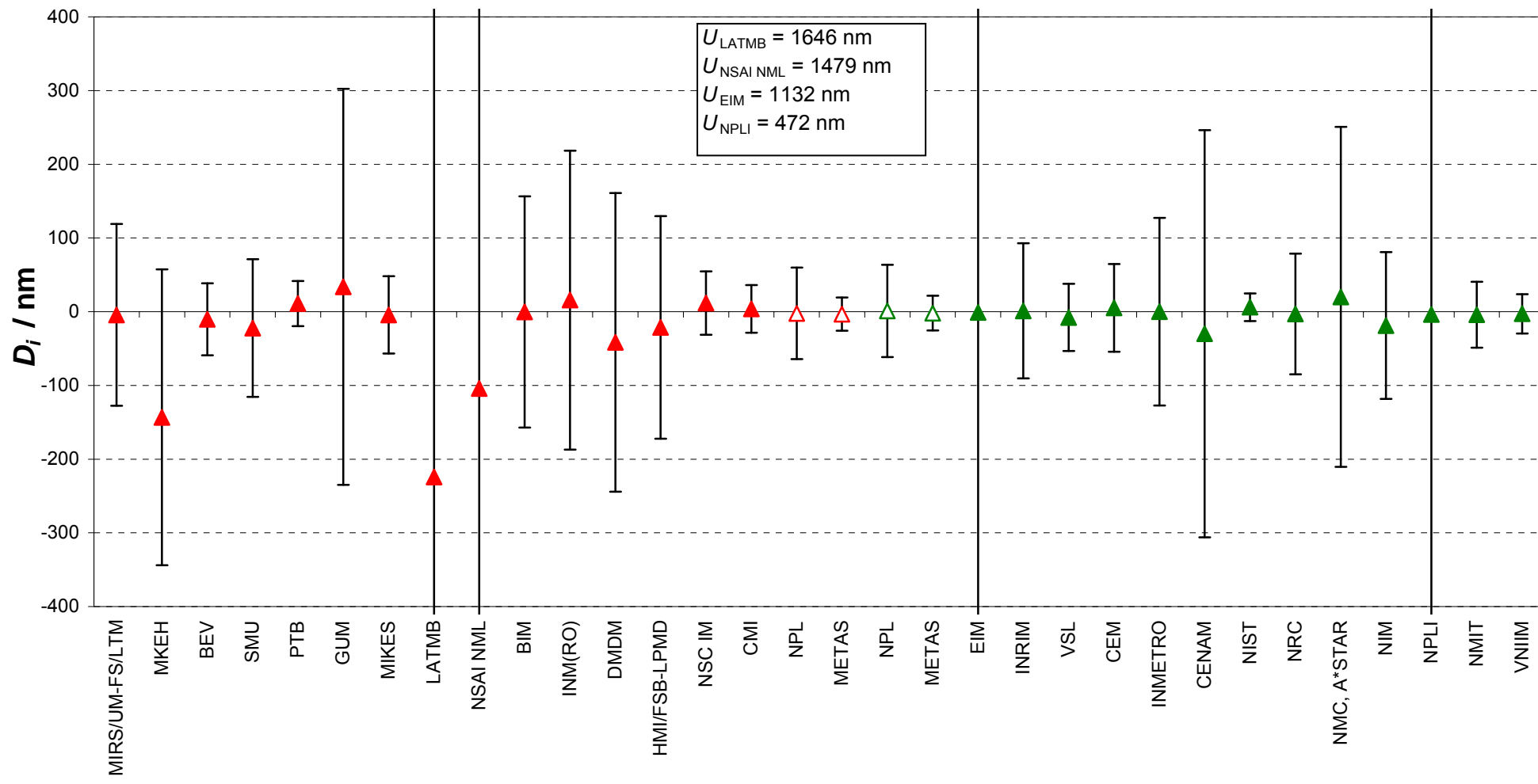
TRANSFER STANDARDS: two linescales designated as "Scale A" and "Scale B"

Degrees of equivalence relative to the key comparison reference value

Nominal length Lab <i>i</i>	75 mm		80 mm		85 mm		90 mm		95 mm		100 mm	
	D_i / nm	U_i / nm	D_i / nm	U_i / nm	D_i / nm	U_i / nm	D_i / nm	U_i / nm	D_i / nm	U_i / nm	D_i / nm	U_i / nm
MIRS/UM-FS/LTM	-8.8	302.6	-38.7	314.6	-63.7	326.5	-81.0	338.5	-57.9	350.5	-53.8	362.6
MKEH	-277.8	201.4	-214.7	201.5	-274.7	201.5	-210.0	201.6	-103.9	201.7	-99.8	202.0
BEV	-183.8	222.8	-233.7	222.9	-259.7	222.8	-228.0	222.8	-252.9	222.8	-322.8	223.0
SMU	90.2	95.0	40.3	95.2	59.3	95.2	207.0	95.4	151.1	95.6	136.2	96.3
PTB	7.6	32.3	10.2	32.5	25.6	31.9	18.7	32.1	9.3	32.3	-1.7	33.6
GUM	-169.8	307.7	-291.7	312.7	-305.7	317.9	-176.0	323.4	-188.9	329.1	-201.8	335.1
MIKES	-2.8	30.3	6.3	30.7	-35.7	53.3	30.0	53.4	20.1	53.5	-1.8	32.3
LATMB	531.2	1646.1	11.3	1646.1	-693.7	1646.1	-991.0	1646.1	-847.9	1646.1	-1334	1646.1
NSAI NML	2781.2	1479.3	2261.3	1479.3	2316.3	1479.3	2769.0	1479.3	3202.1	1479.3	3226.2	1479.3
BIM	-42.8	165.2	-47.7	166.4	-56.7	167.4	-56.0	168.6	-60.9	169.9	-56.8	171.5
INM(RO)	231.2	207.0	201.3	207.6	236.3	208.1	399.0	208.7	302.1	209.4	356.2	210.3
DMDM	-55087	204.9	-58628	205.2	-61992	205.4	-65610	205.7	-68649	206.1	-72892	206.6
HMI/FSB-LPMD	-28.8	225.8	-20.7	230.8	-53.7	235.7	38.0	240.7	41.1	245.7	74.2	250.9
NSC IM	468.2	51.1	476.3	52.2	482.3	52.7	503.0	53.7	544.1	54.9	521.2	56.6
CFI	-13.8	44.5	-17.7	45.9	-23.7	46.8	-30.0	48.3	-19.9	49.8	-25.8	52.0
NPL	1.9	63.0	1.3	63.1	-0.2	62.8	5.3	62.9	-0.4	63.0	4.6	63.6
METAS	1.2	26.9	-0.7	27.4	-6.7	27.0	-5.0	27.5	-2.9	28.1	-0.8	29.8
NPL	2.1	63.2	17.9	63.3	12.6	63.4	4.9	63.6	14.5	63.7	12.9	63.8
METAS	-18.1	27.4	-20.8	28.0	-19.3	28.4	-23.6	29.2	-23.3	29.7	-20.0	30.2
EIM	-389.1	1142.1	-380.8	1143.4	-431.3	1144.9	-324.6	1146.4	-296.3	1148.0	-238.0	1149.7
INRIM	0.9	96.9	1.2	97.6	-0.3	98.4	1.4	99.2	3.7	100.0	4.0	100.9
VSL	39.9	59.0	25.2	59.9	29.7	60.9	43.4	61.9	49.7	62.9	72.0	63.8
CEM	-4.1	64.3	19.2	65.0	-5.3	65.6	9.4	66.4	8.7	67.1	-2.0	67.9
INMETRO	71.9	185.1	133.2	185.1	79.7	185.1	8.4	185.2	2.7	185.3	-83.0	185.3
CENAM	-248.1	402.3	-275.8	416.7	-261.3	431.5	-183.6	446.7	-234.3	462.2	-241.0	478.0
NIST	5.7	22.5	-1.1	23.0	13.3	23.4	3.0	24.1	-0.6	24.6	9.4	25.0
NRC	8.3	87.7	6.1	88.5	13.4	89.3	3.6	90.2	3.9	91.1	2.2	92.0
NIM	-73.1	236.8	-25.8	237.6	-23.3	238.5	-21.6	239.4	27.7	240.4	47.0	241.4
NIMT-THA	120.9	100.0	132.2	100.1	136.7	100.1	149.4	100.3	150.7	100.3	158.0	100.4
NPLI	45.9	474.9	-65.8	475.2	-155.3	475.6	-47.6	476.0	-326.3	476.4	-454.0	476.9
NMIT	-6.1	90.0	-0.3	94.5	-13.0	99.1	2.4	103.9	-13.7	108.6	-0.3	113.3
VNIIM	-27.1	46.9	-22.8	48.4	-22.3	49.9	-28.6	51.5	-26.3	53.0	-27.0	54.5

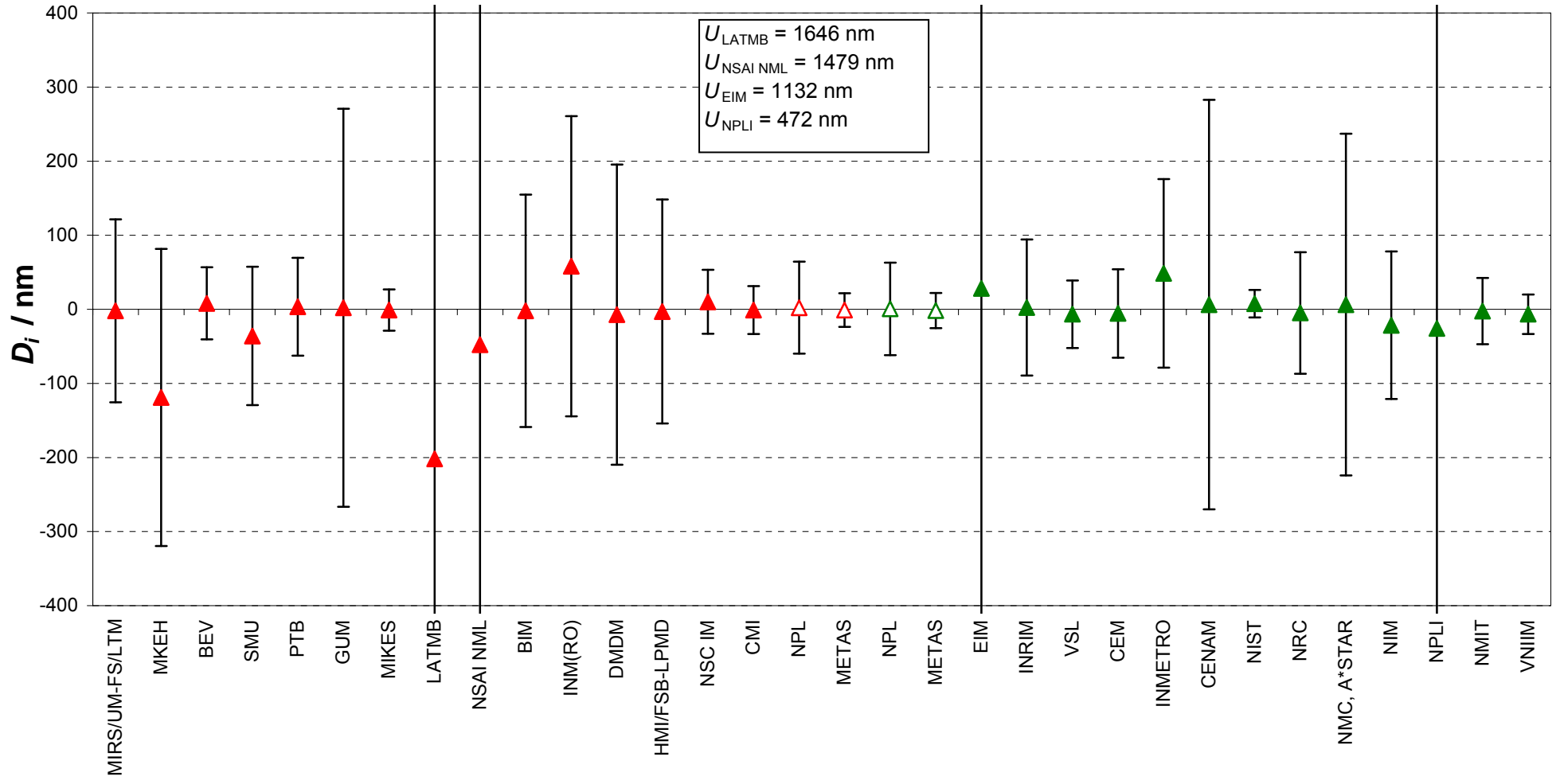
Laboratory having measured Scale A (Group 1)
 Laboratory having measured Scale B (Group 2)
NPL and METAS are the linking laboratories between the two groups

EUROMET.L-K7.2006 Linescale, nominal length $L = 0.1$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



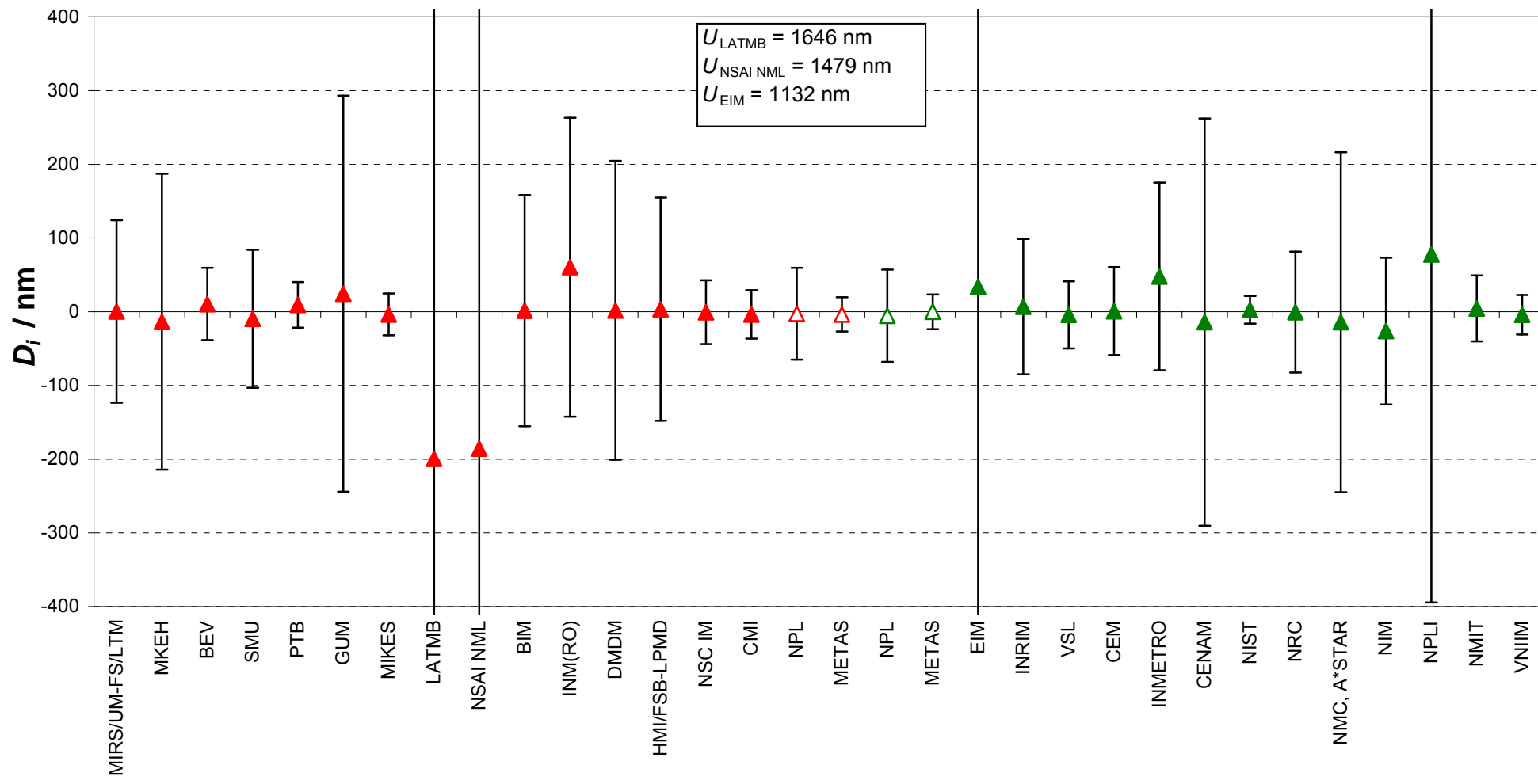
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 0.2$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



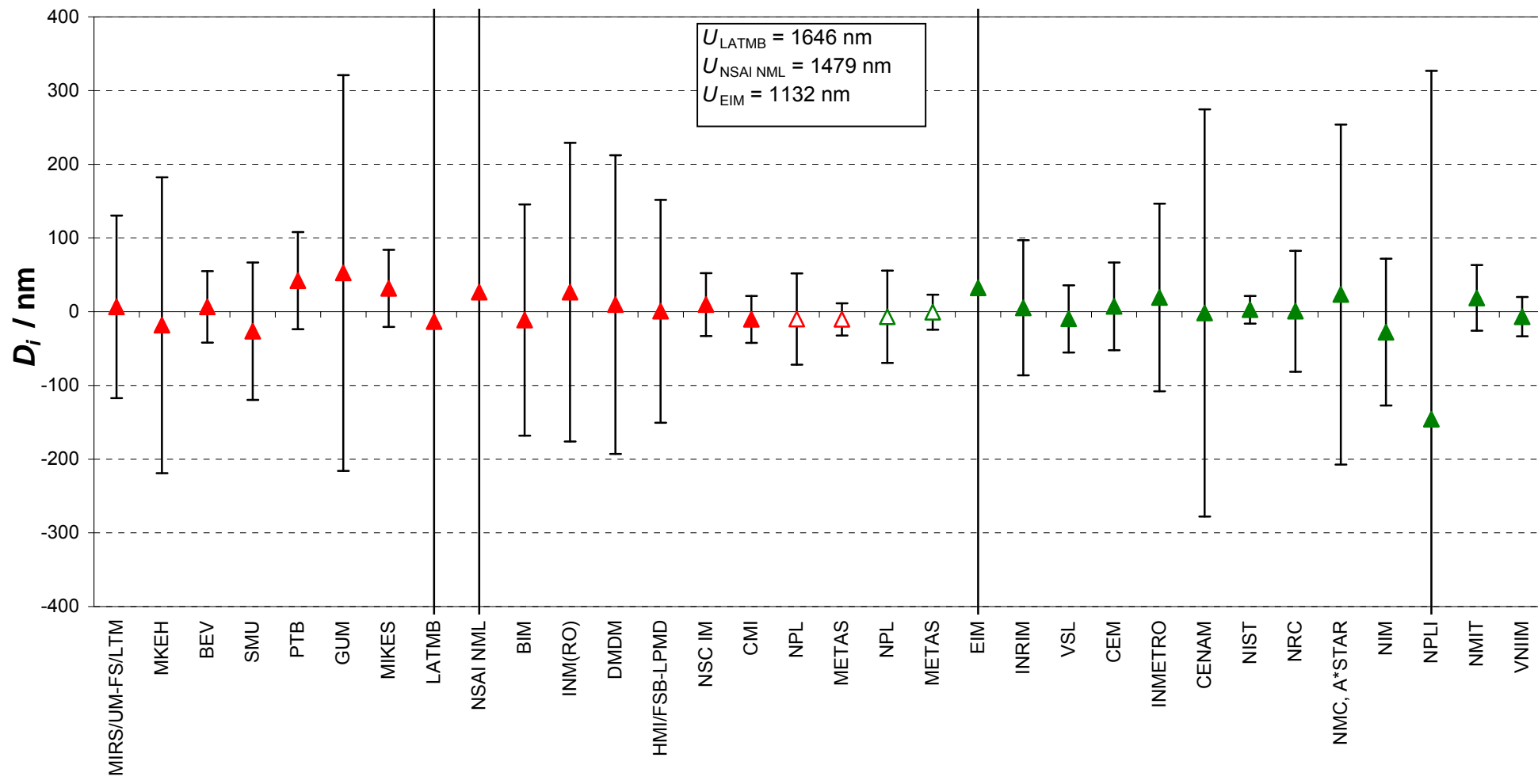
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 0.3$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



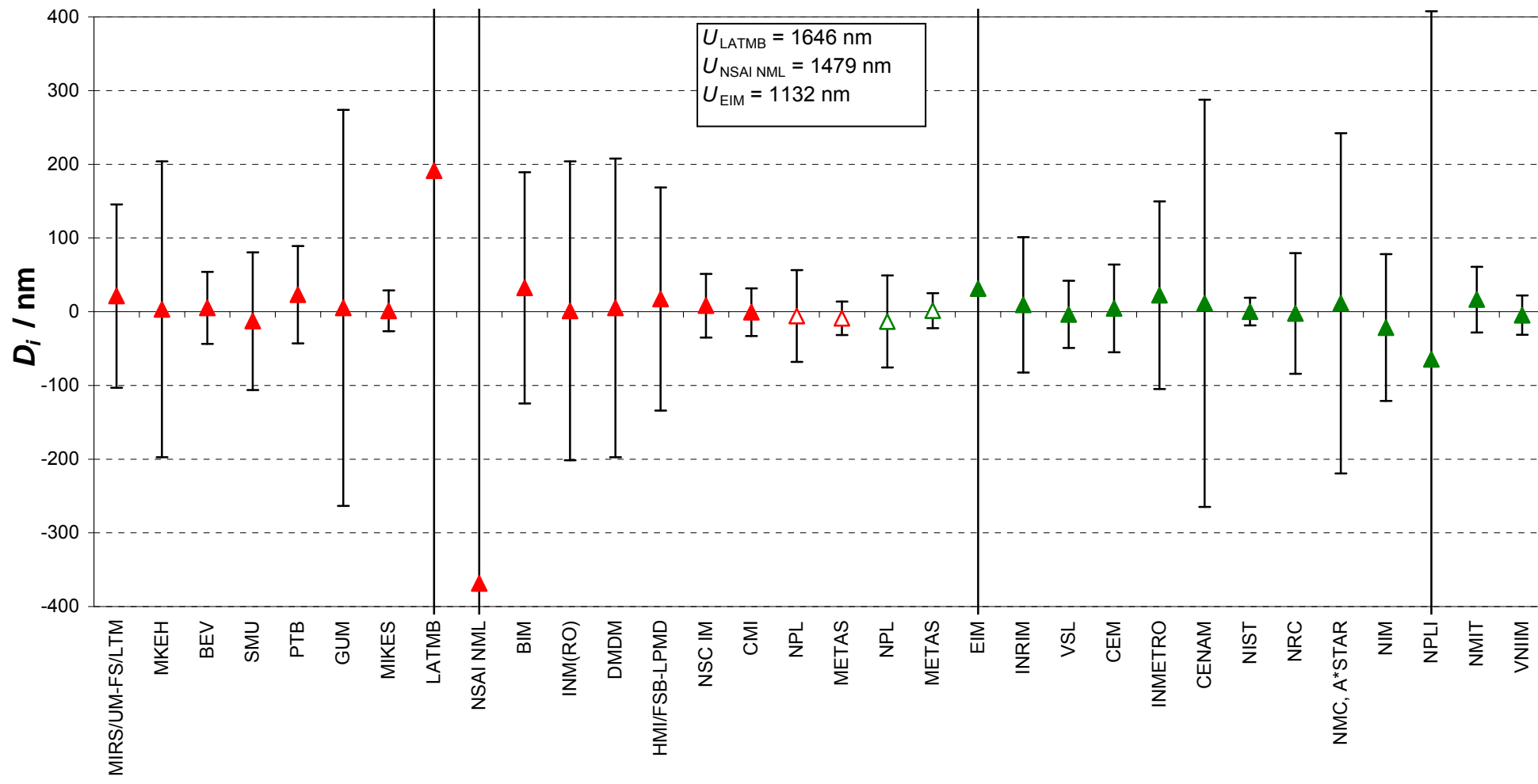
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 0.4$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



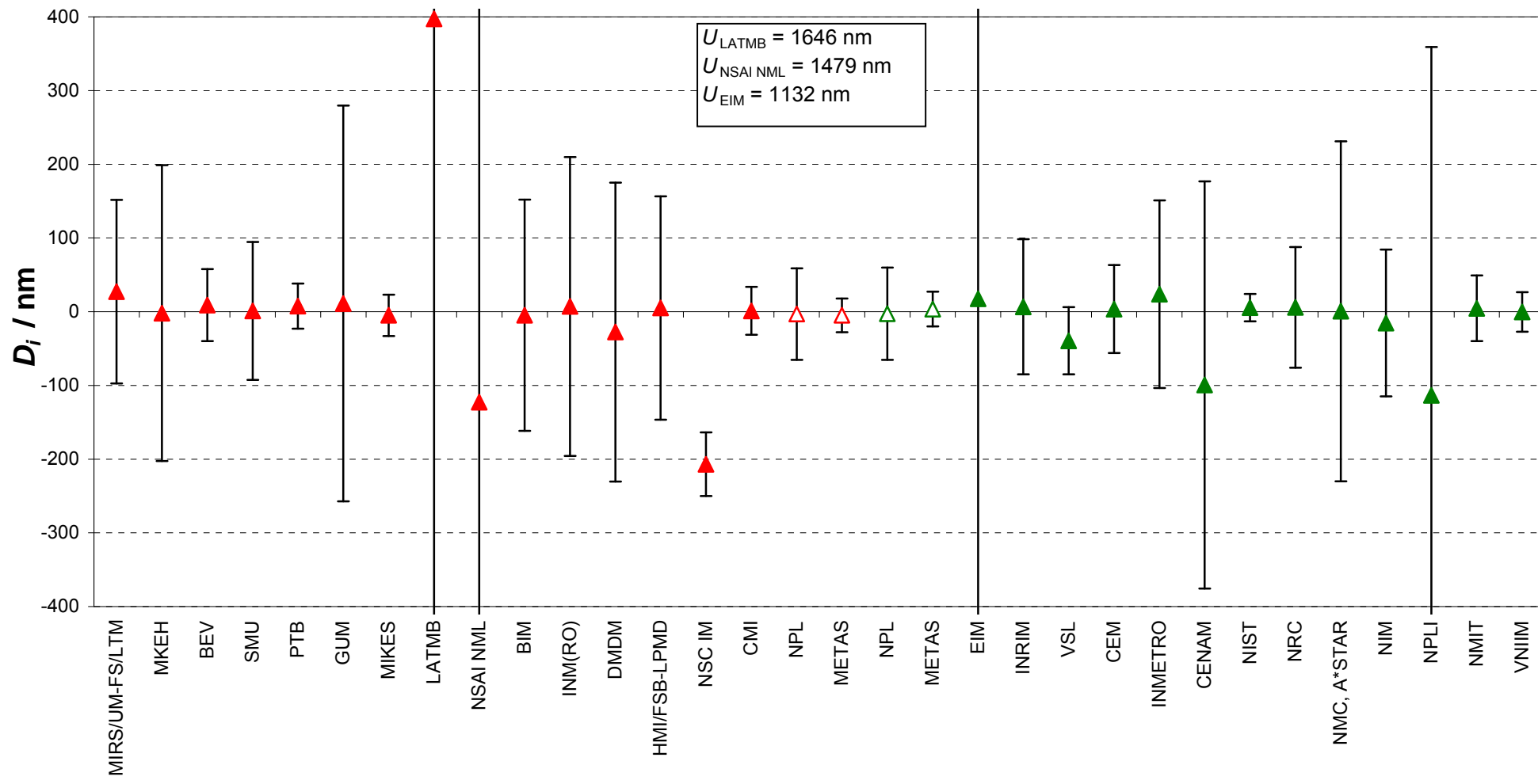
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 0.5$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



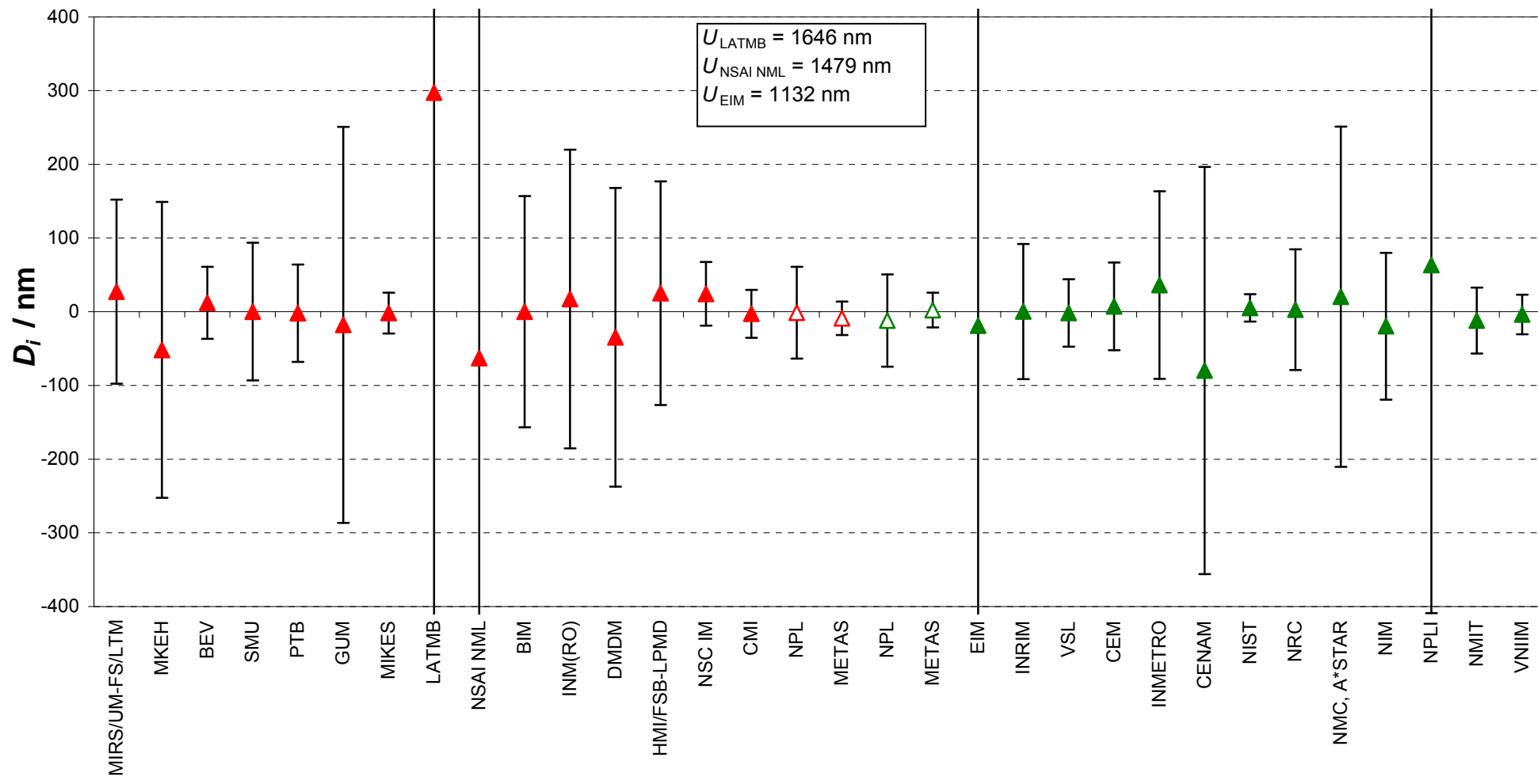
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 0.6$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



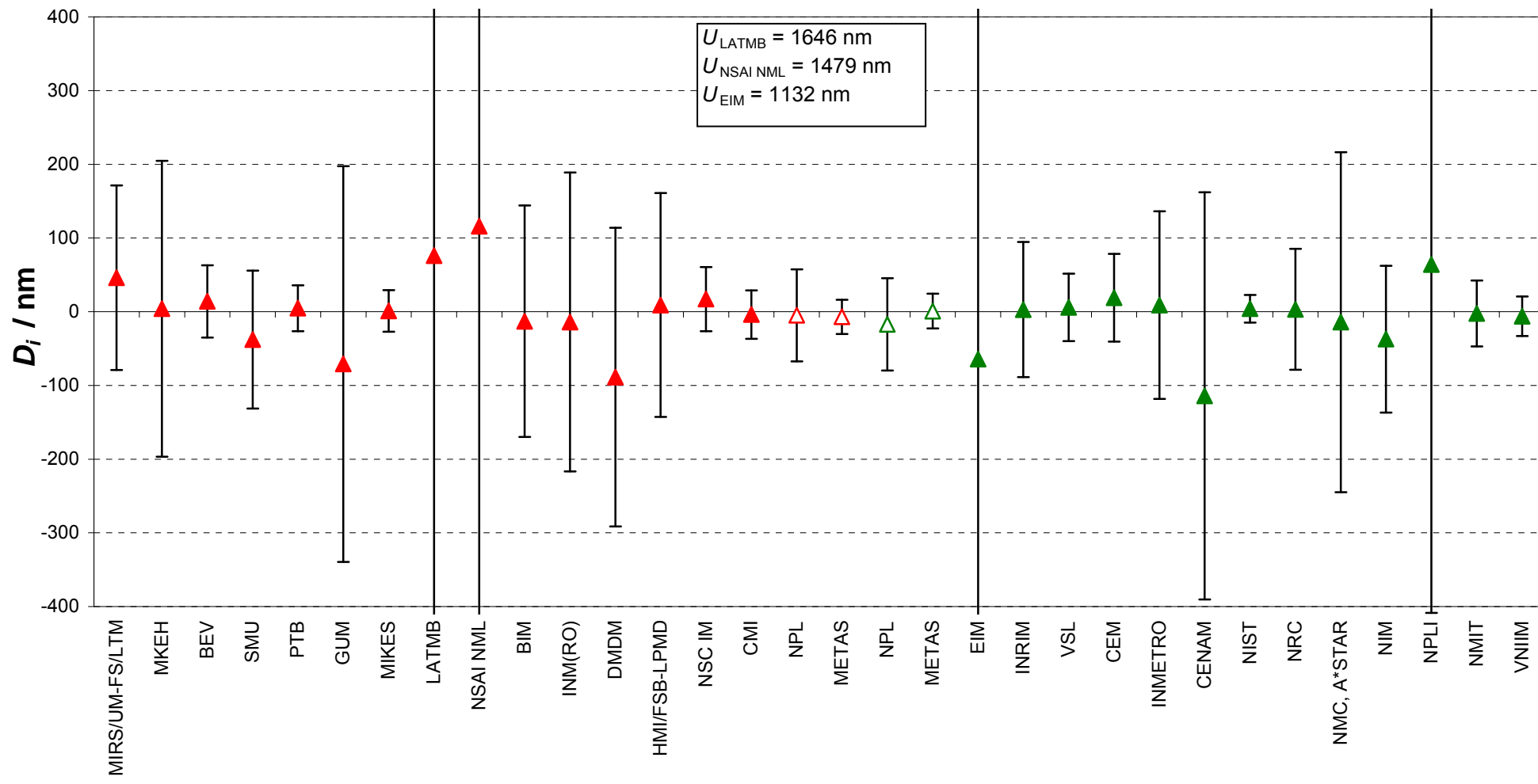
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 0.7$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



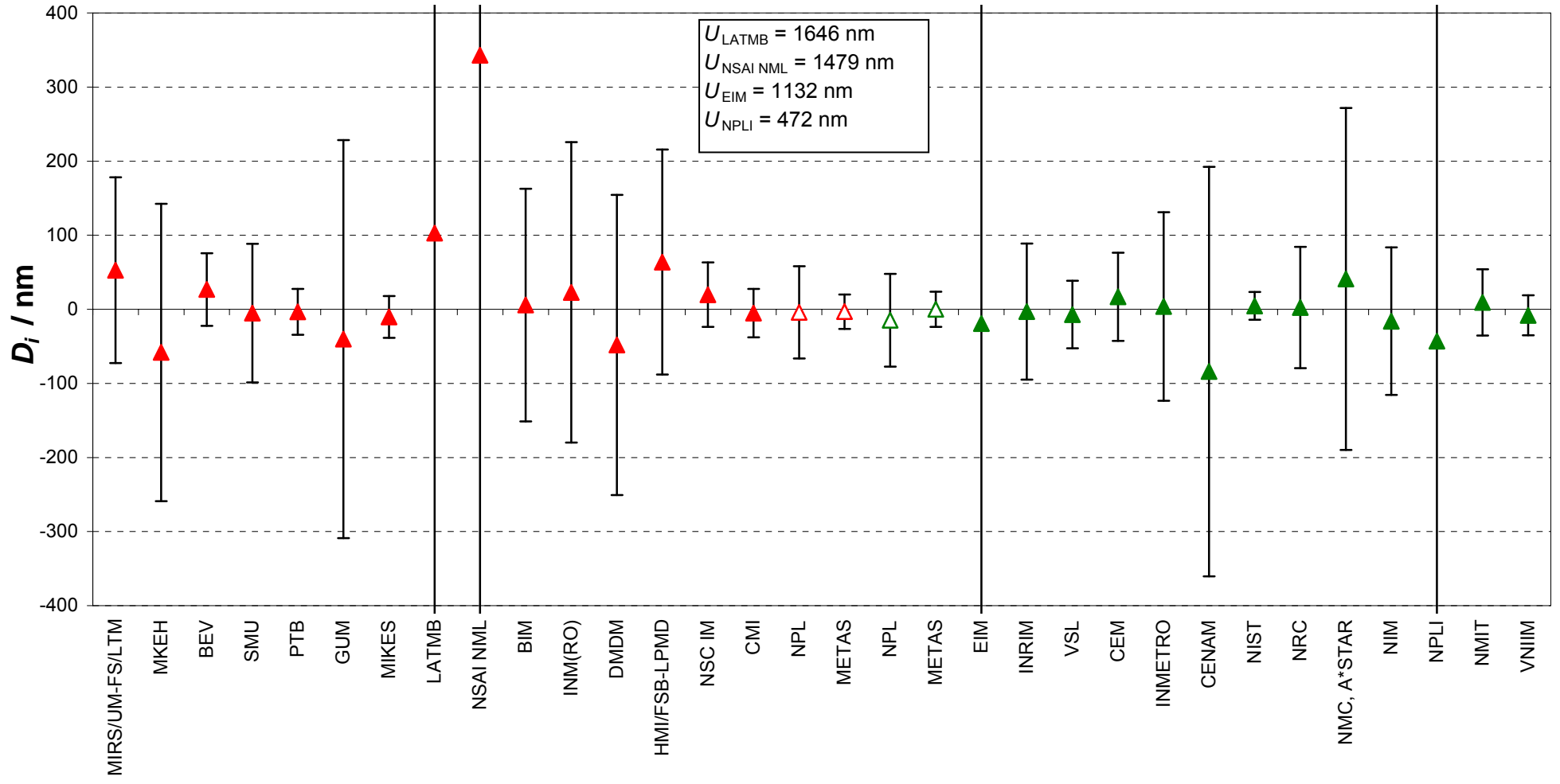
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 0.8$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



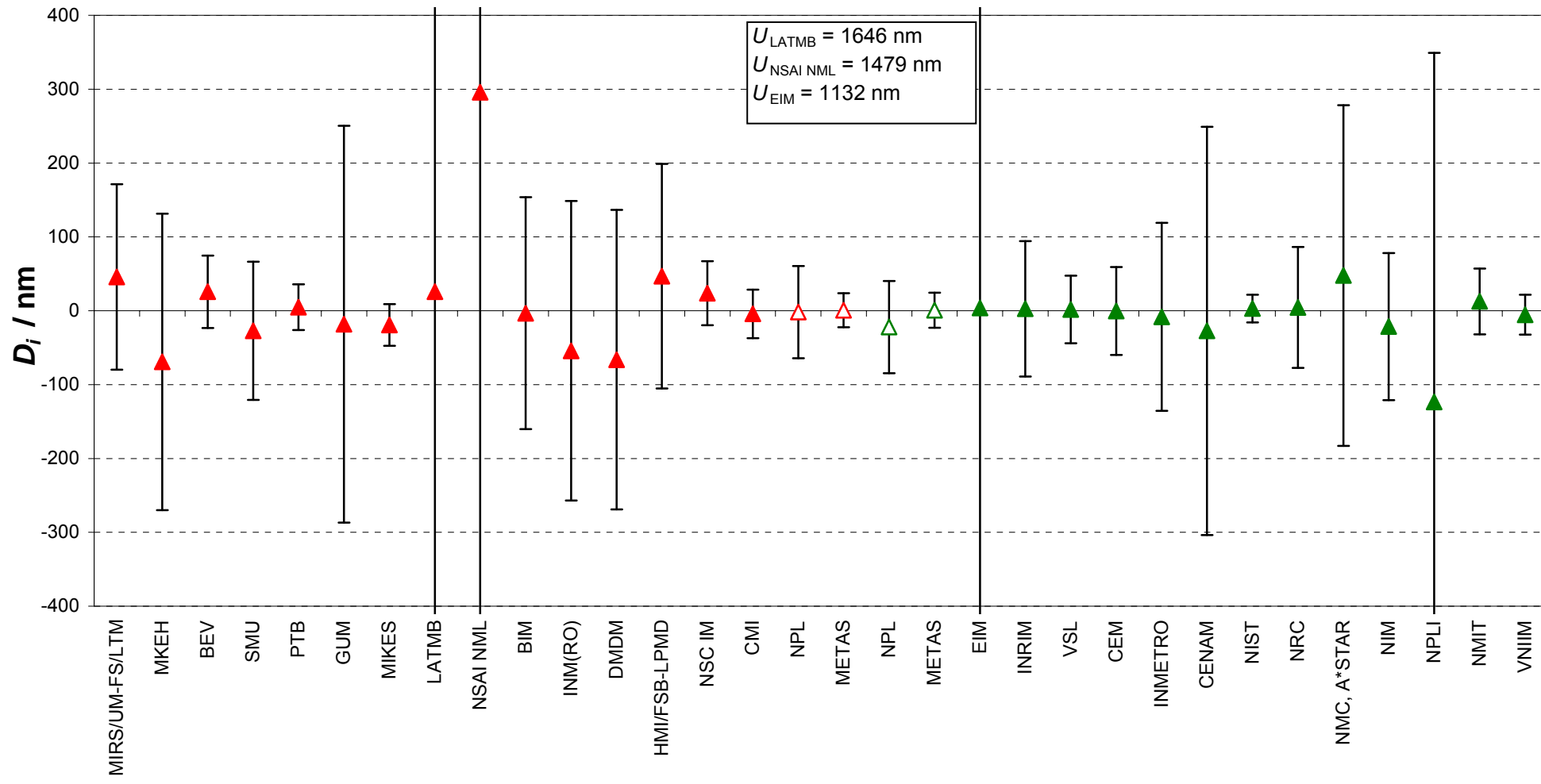
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 0.9$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



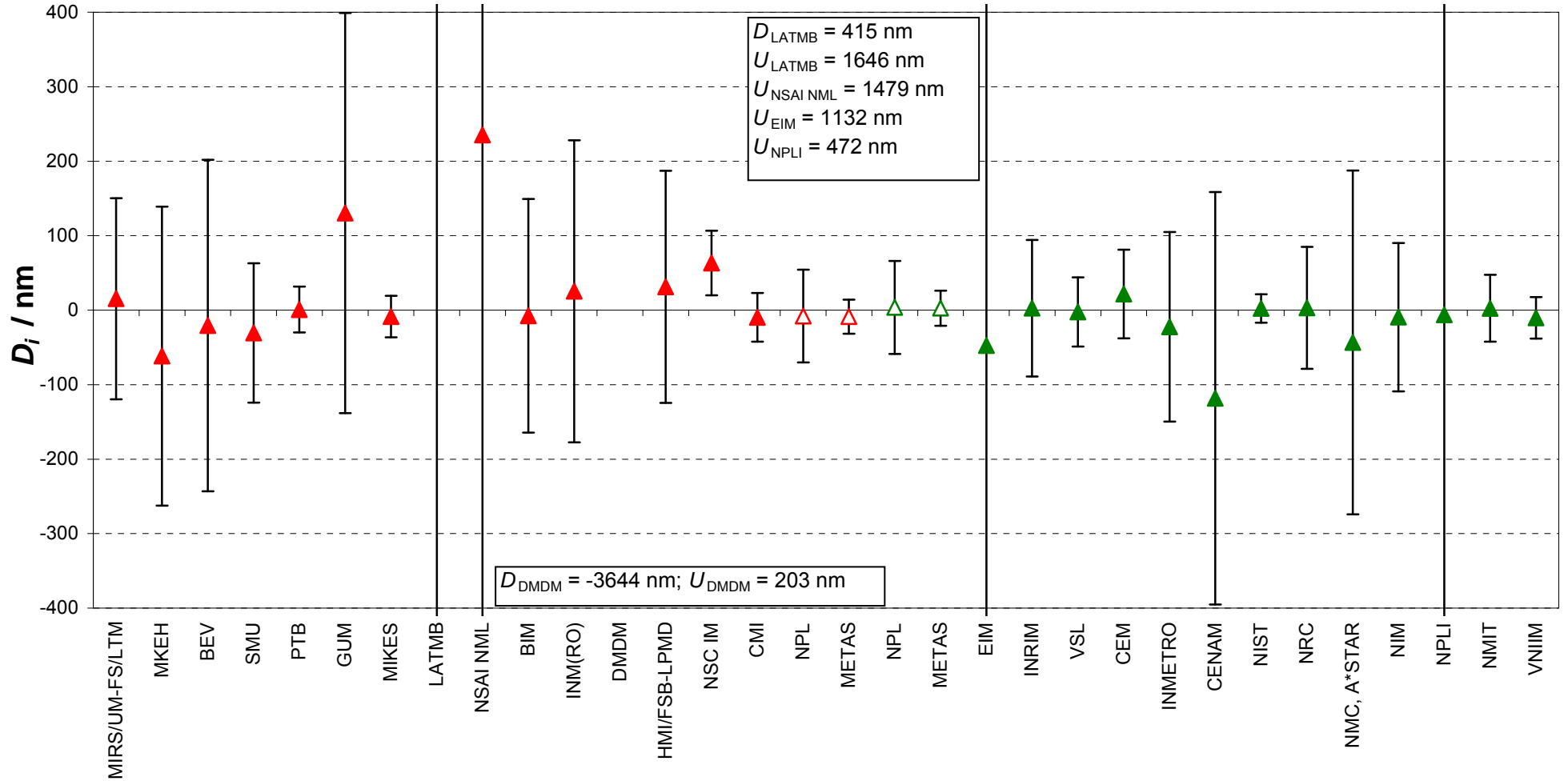
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 1$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



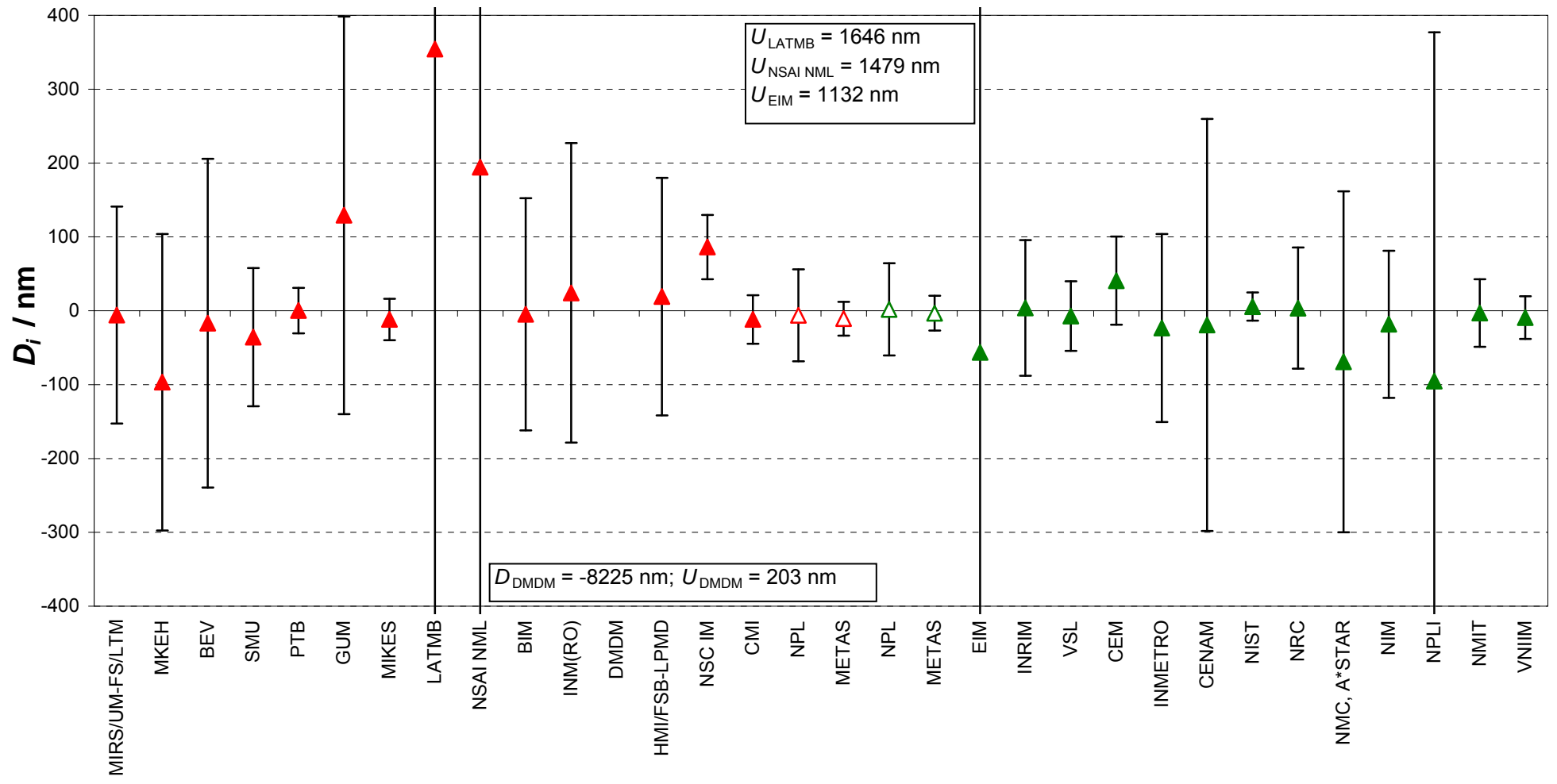
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 5$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



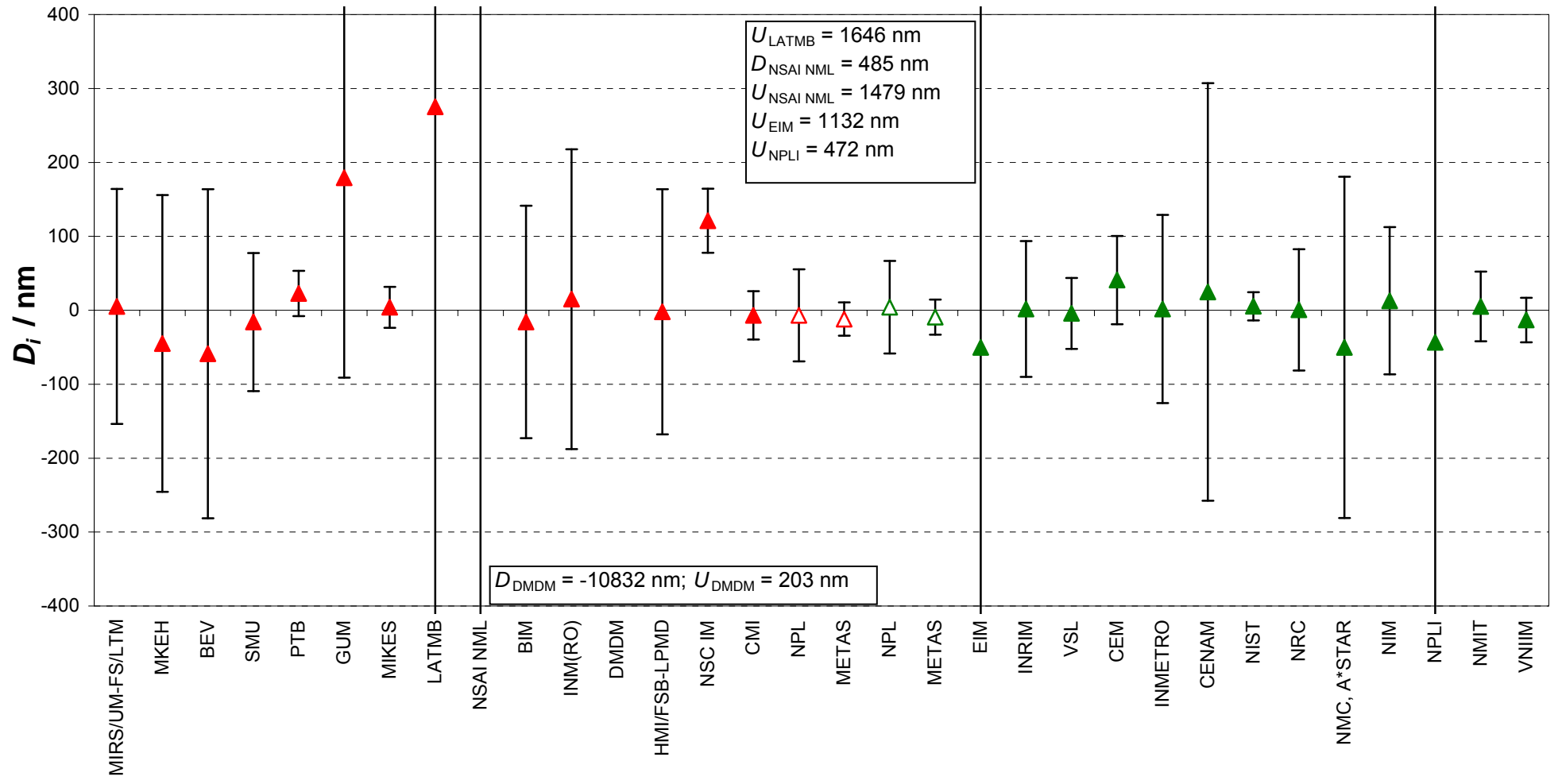
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 10$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



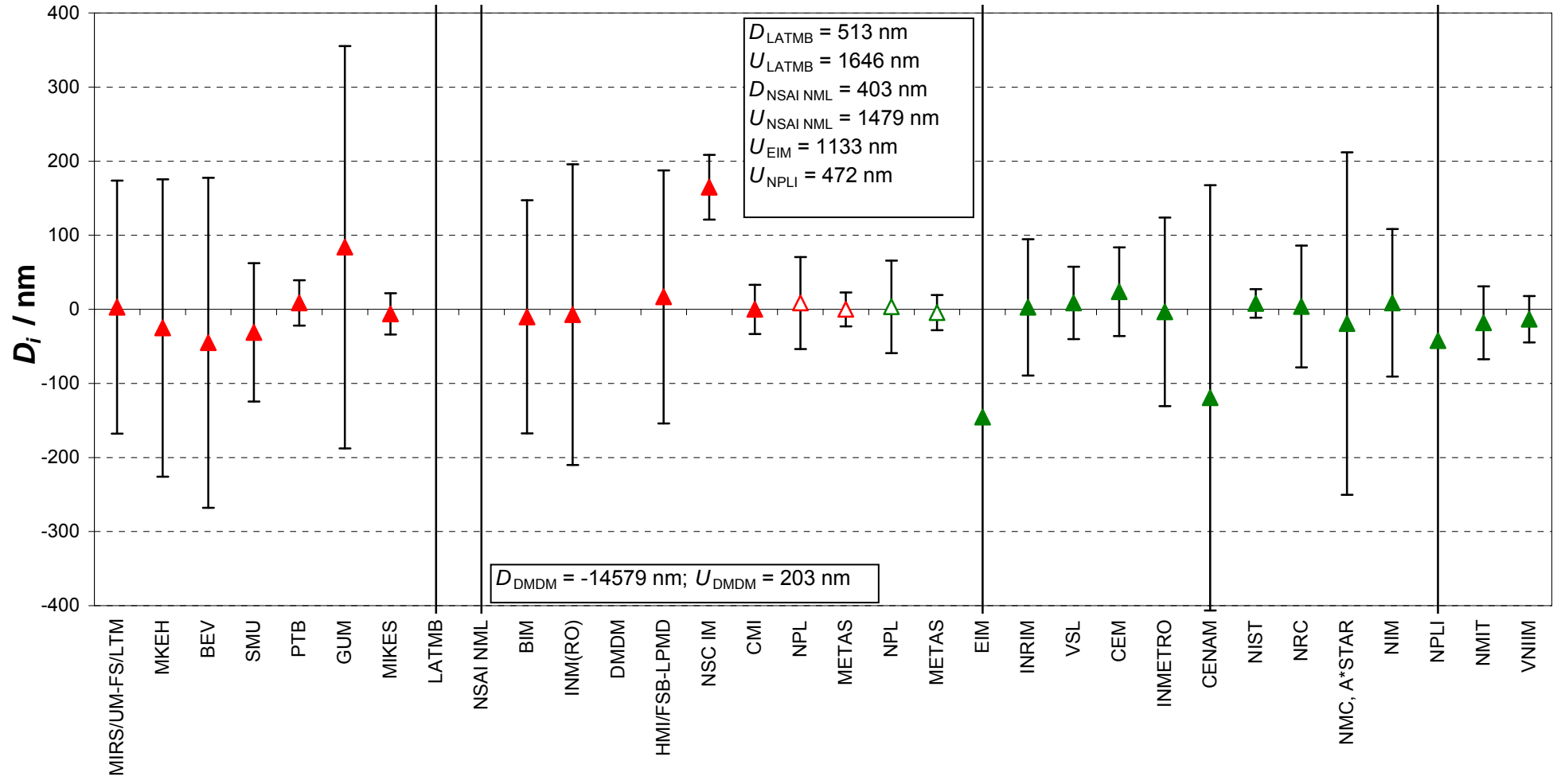
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 15$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



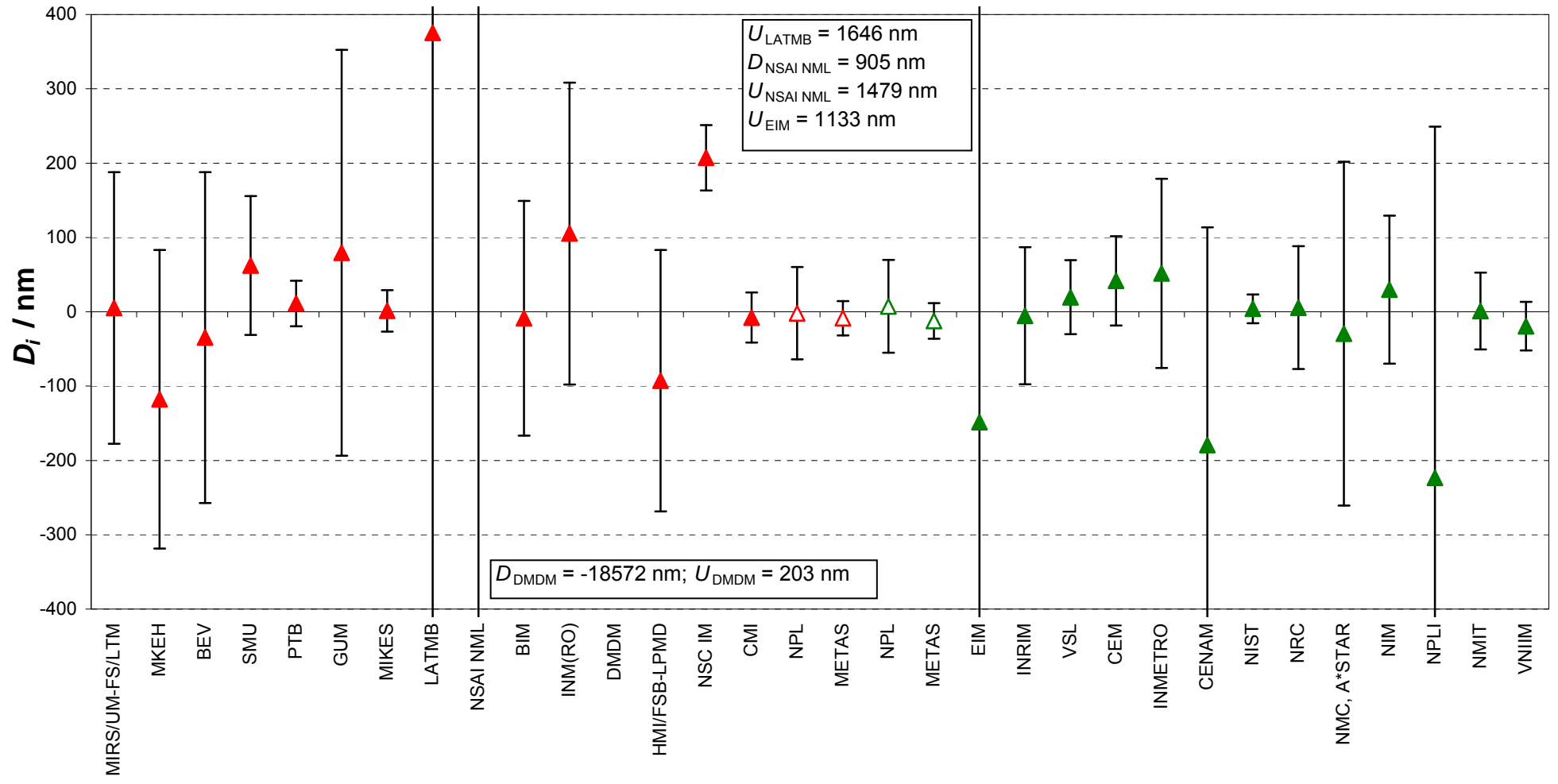
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 20$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



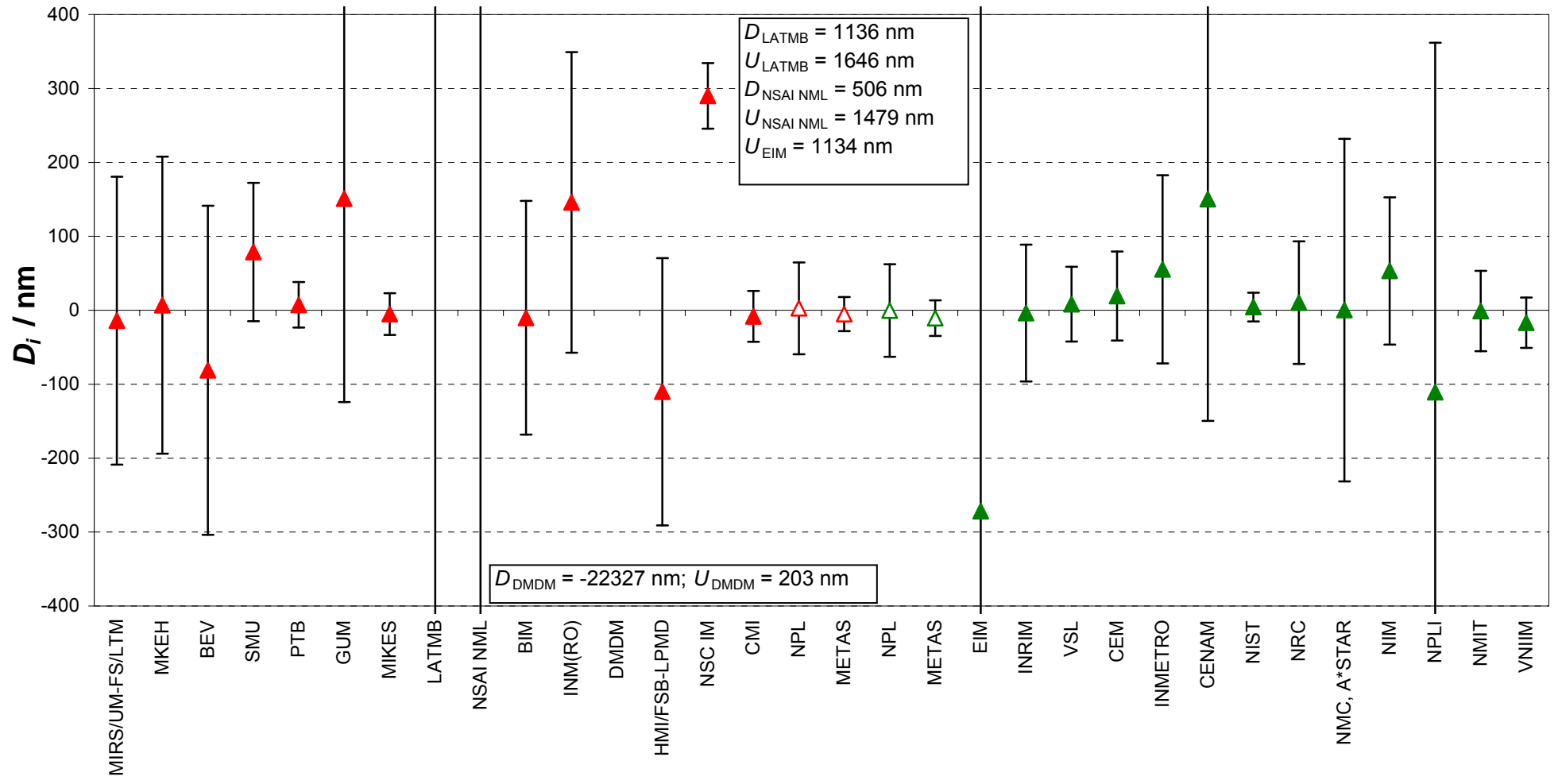
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 25$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



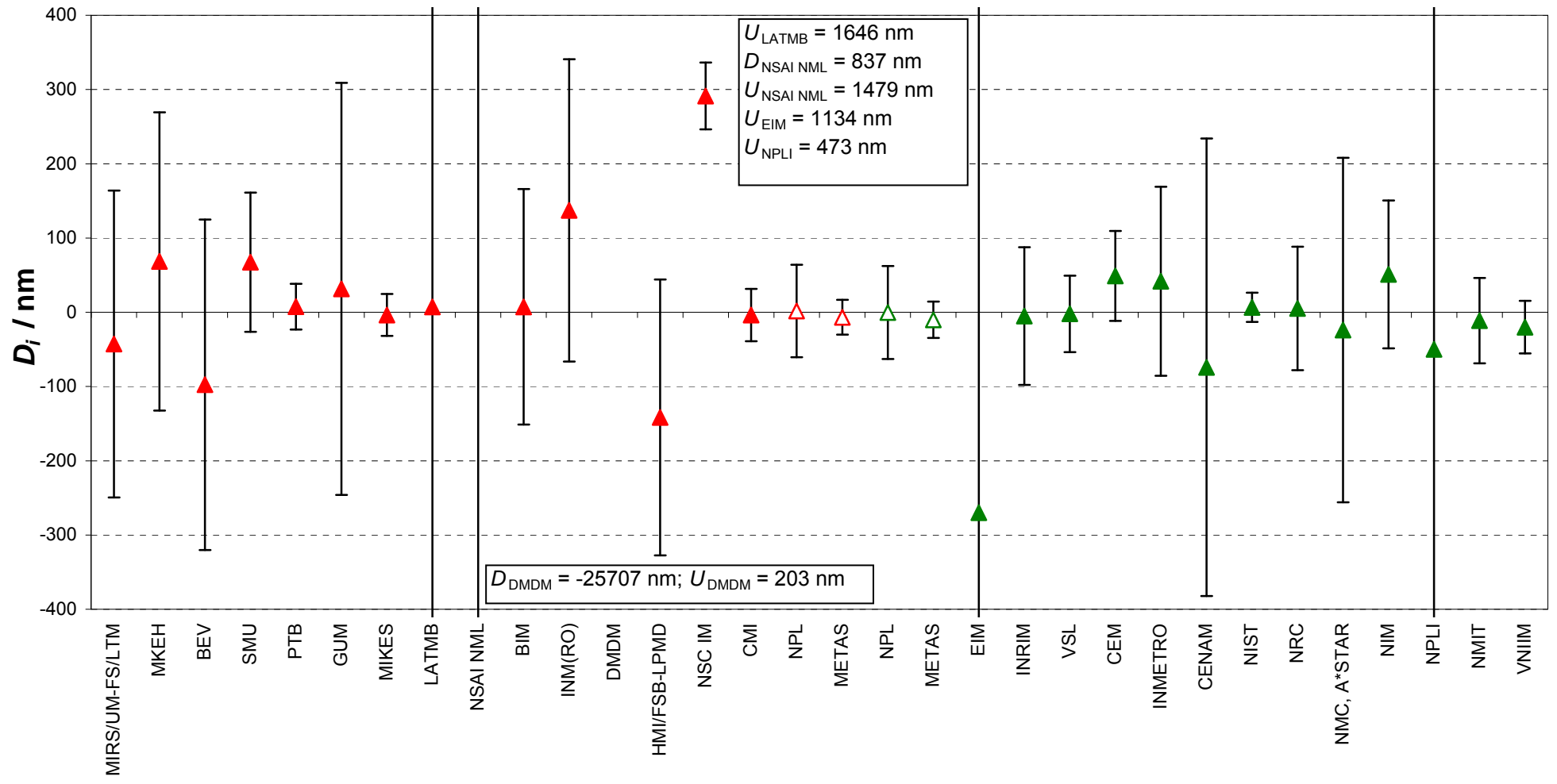
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 30$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



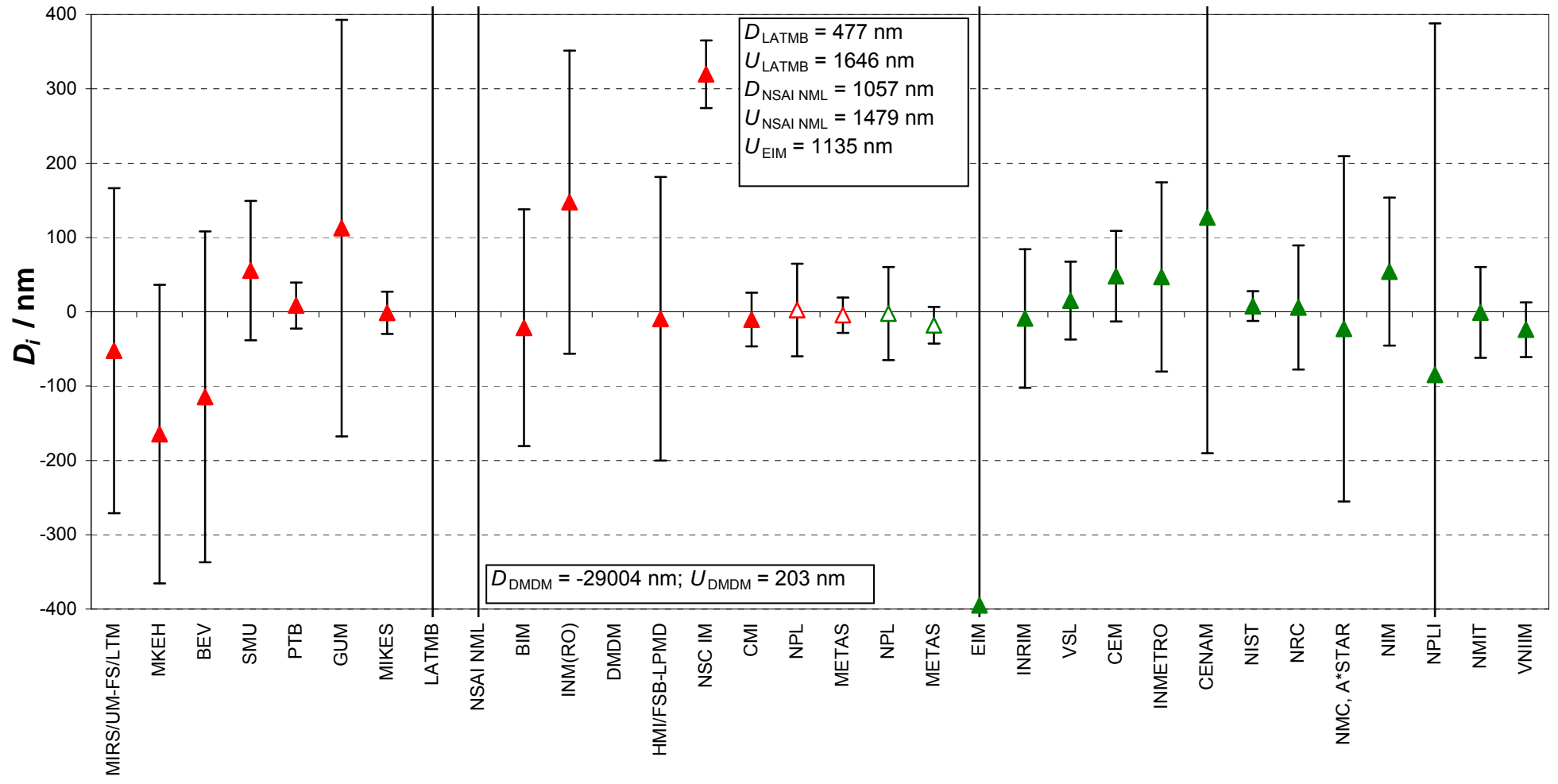
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 35$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



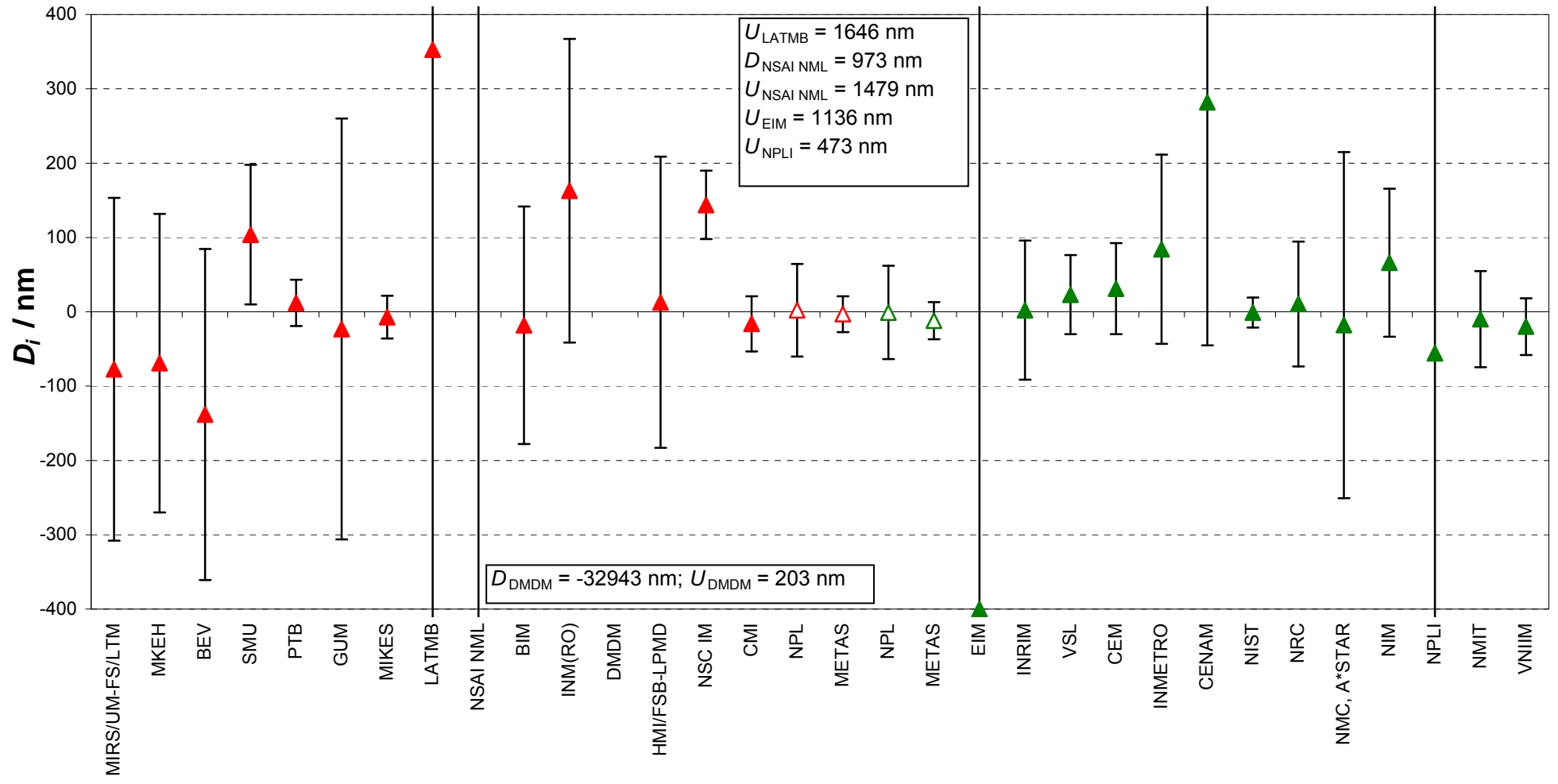
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 40$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



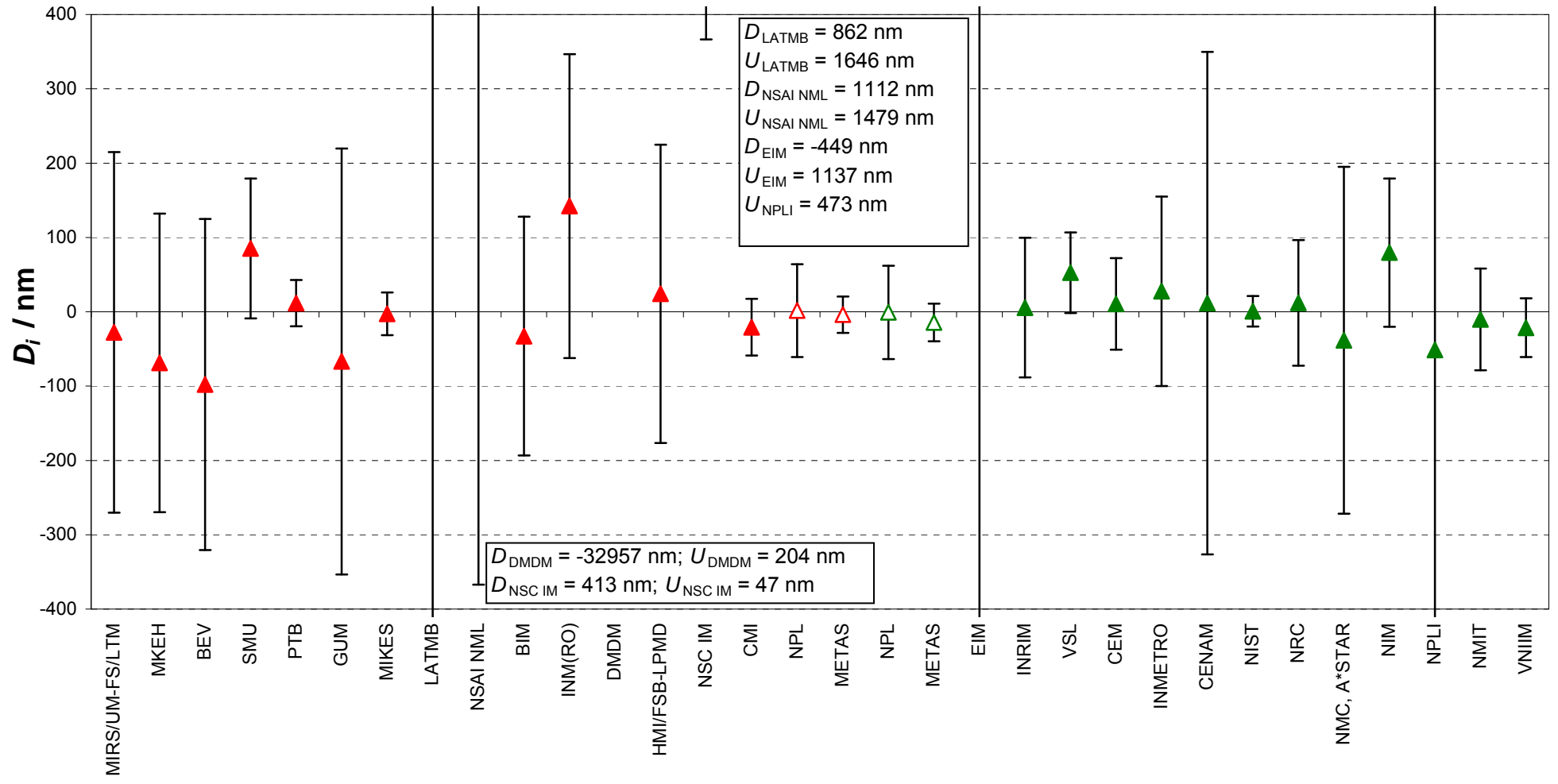
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 45$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



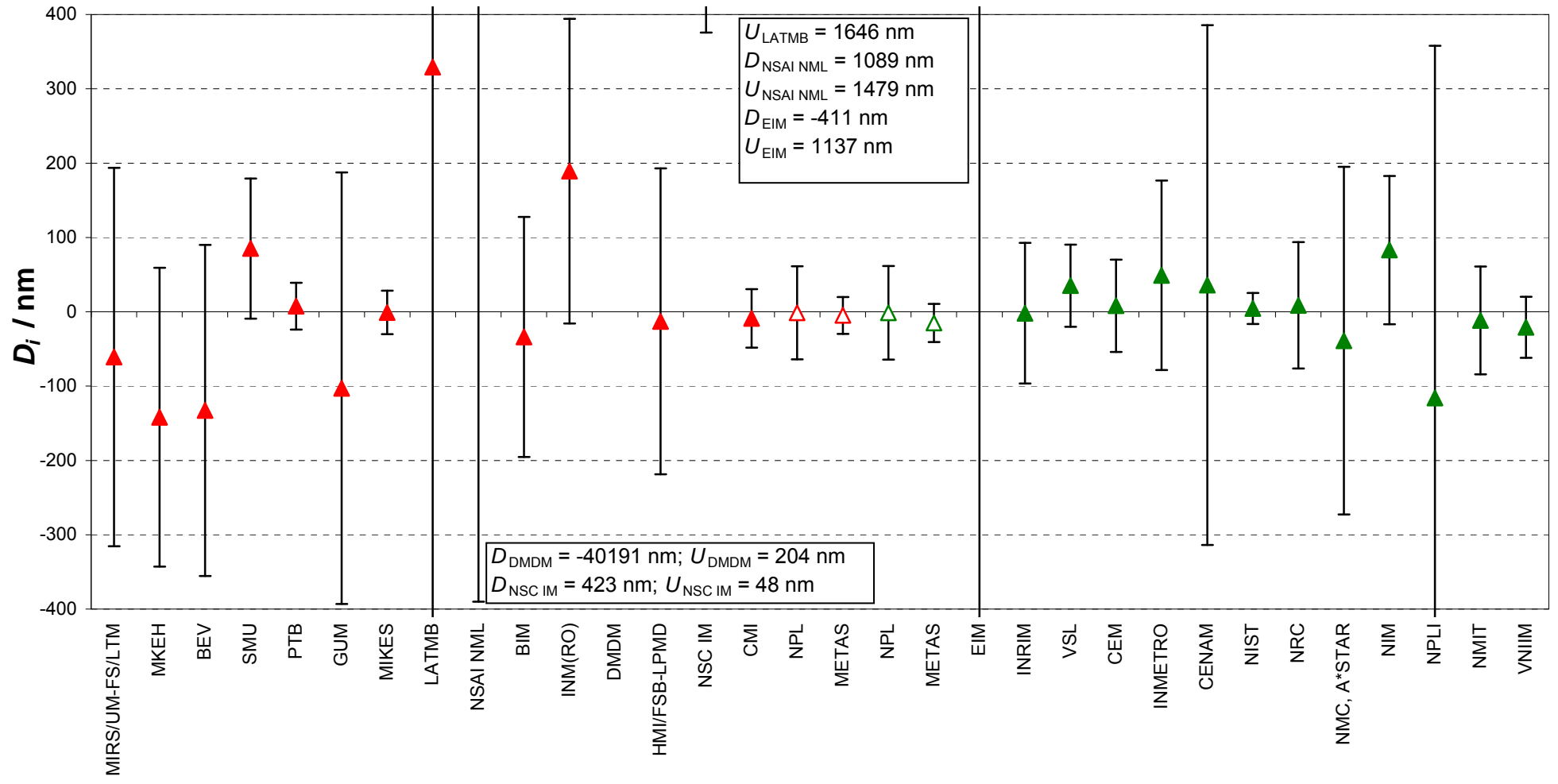
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 50$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



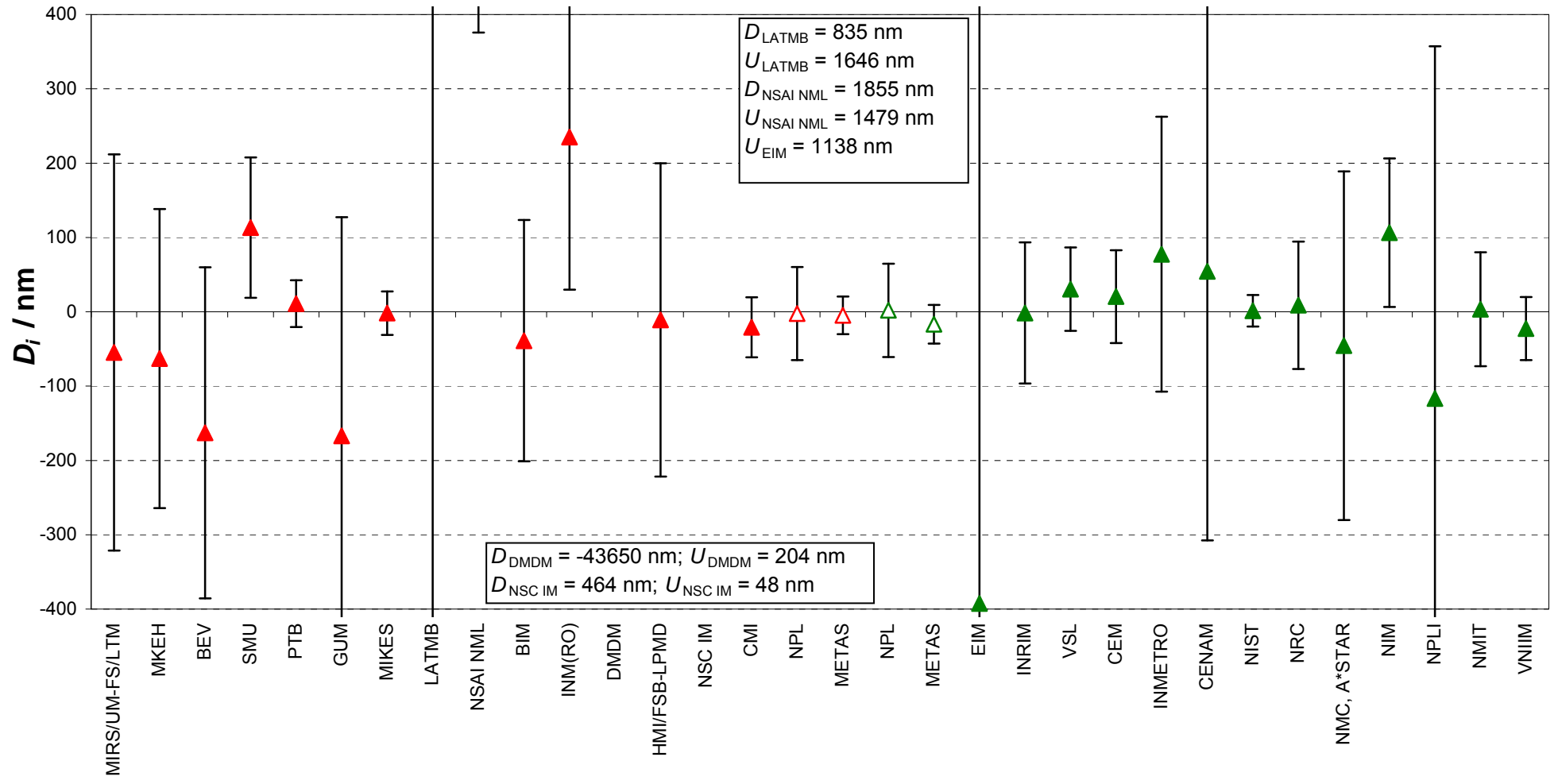
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 55$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



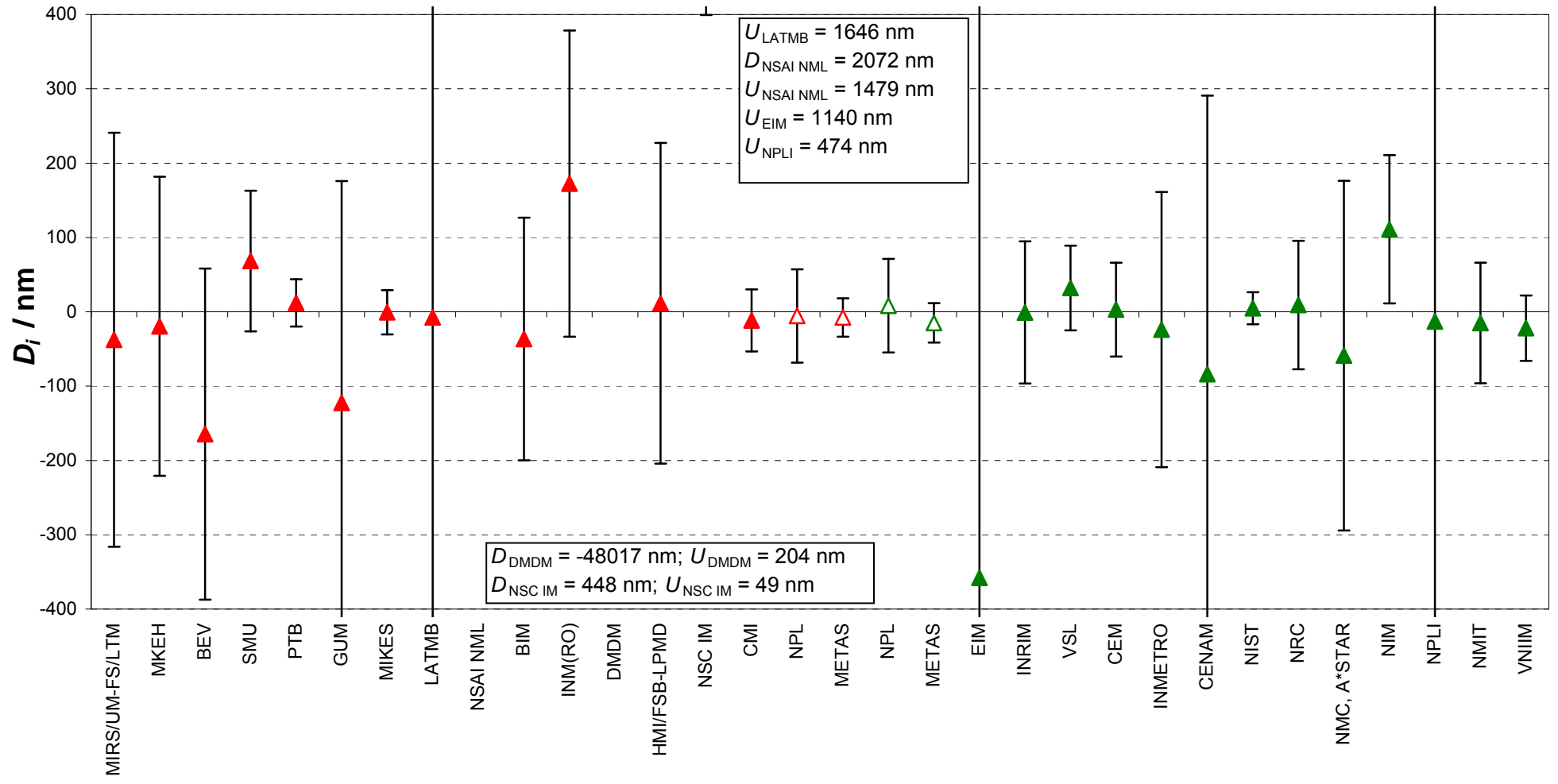
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 60$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



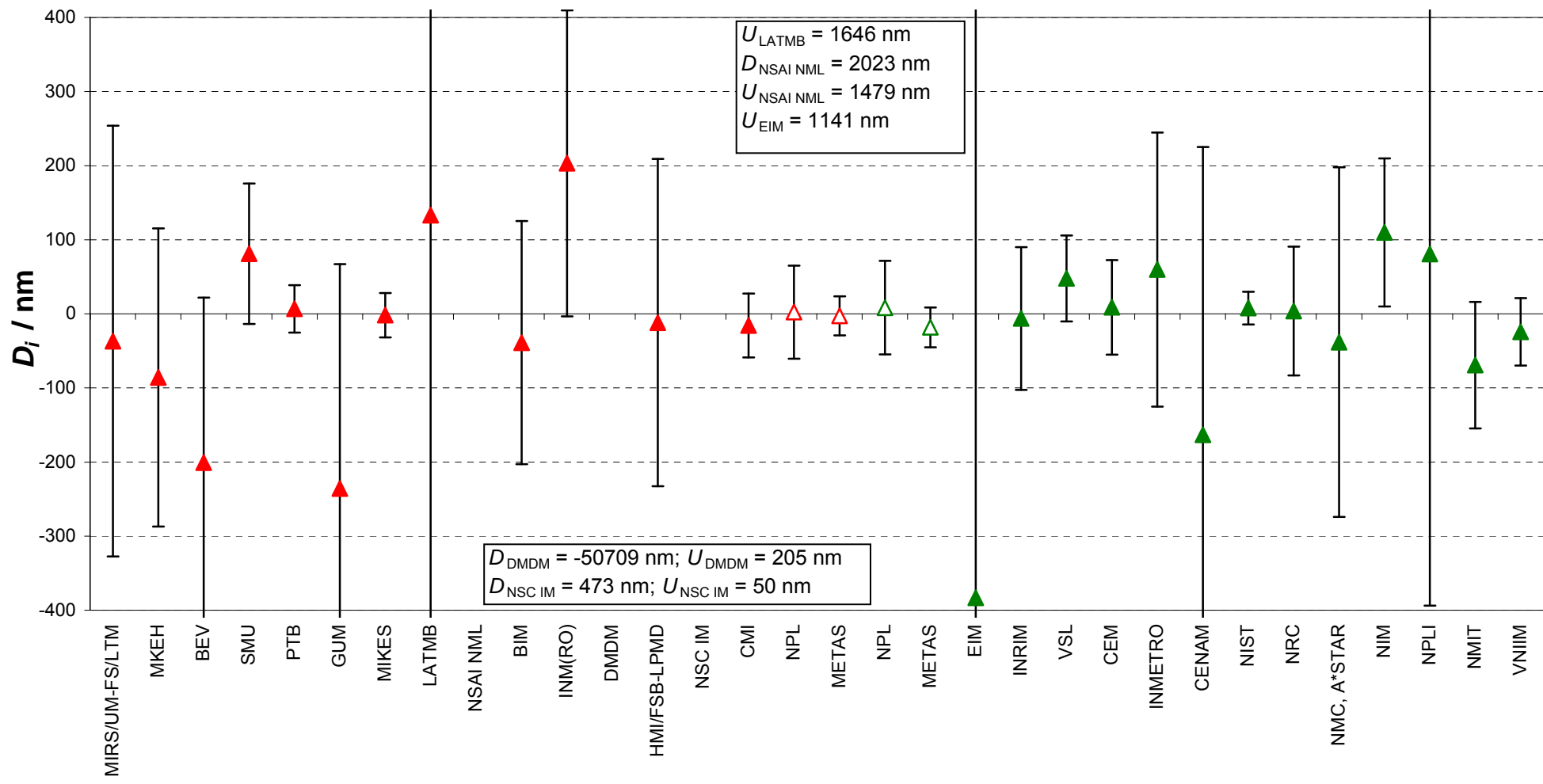
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 65$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

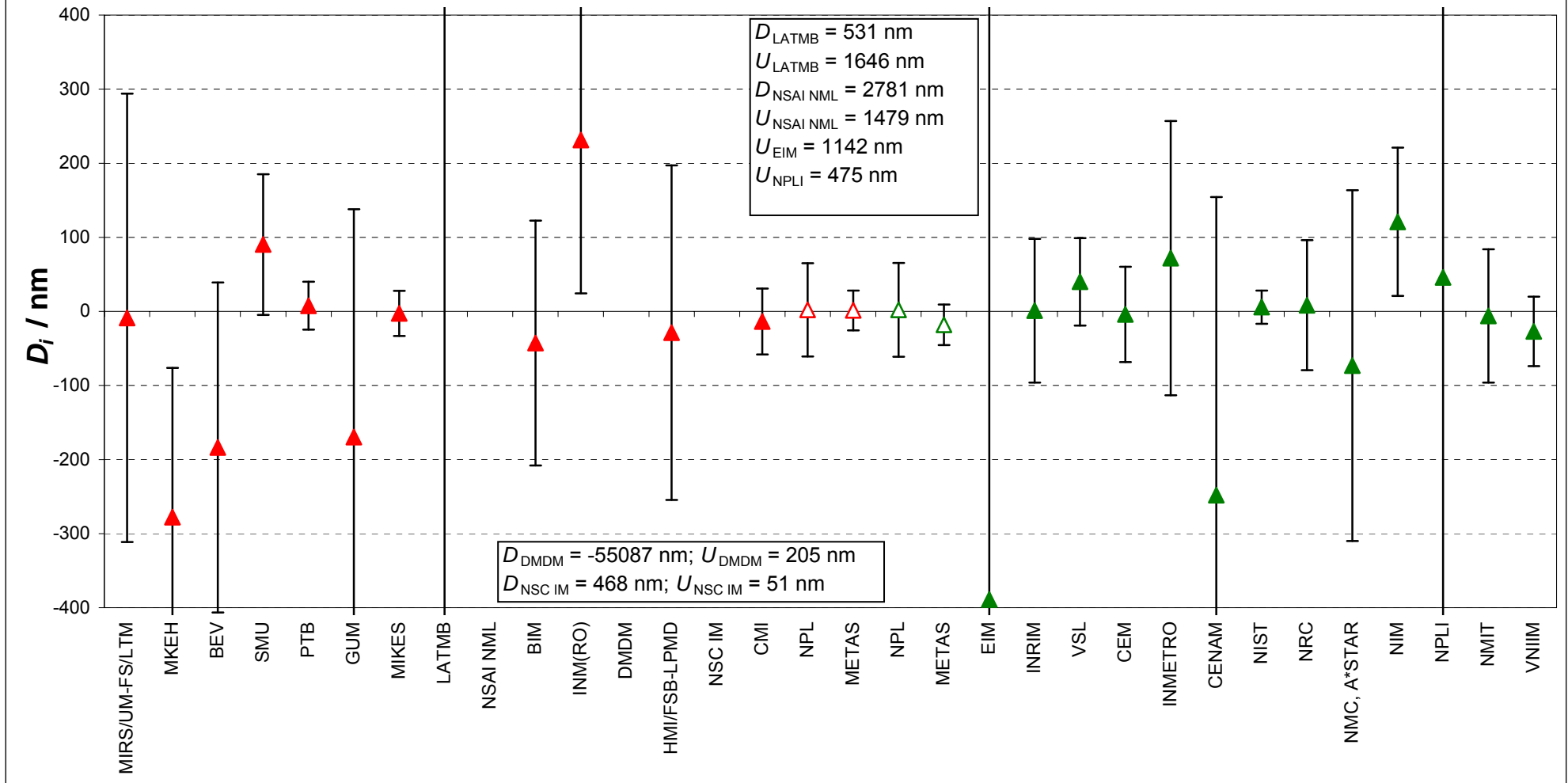
EUROMET.L-K7.2006 Linescale, nominal length $L = 70$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

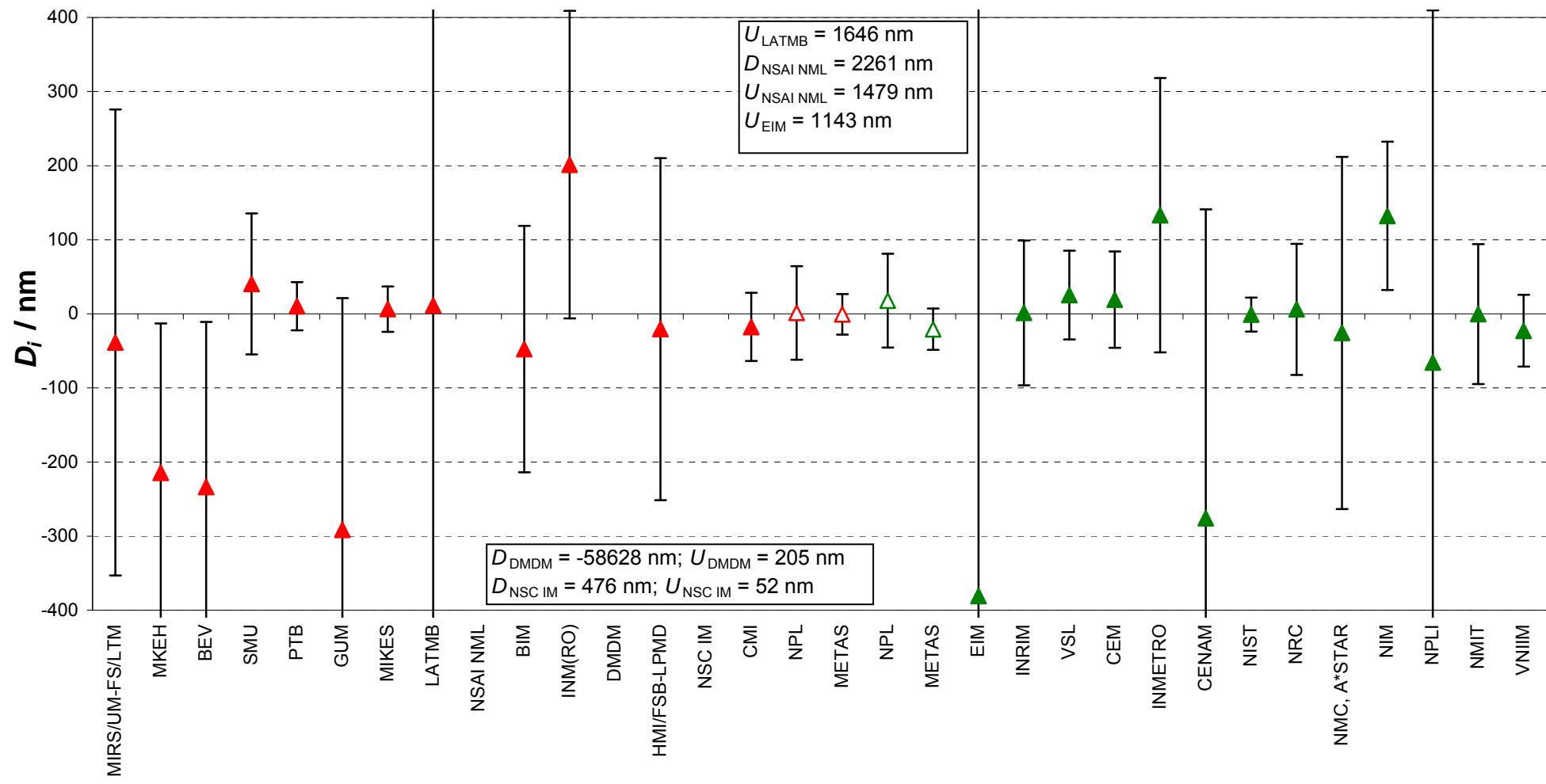
EUROMET.L-K7.2006 Linescale, nominal length $L = 75$ mm

Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



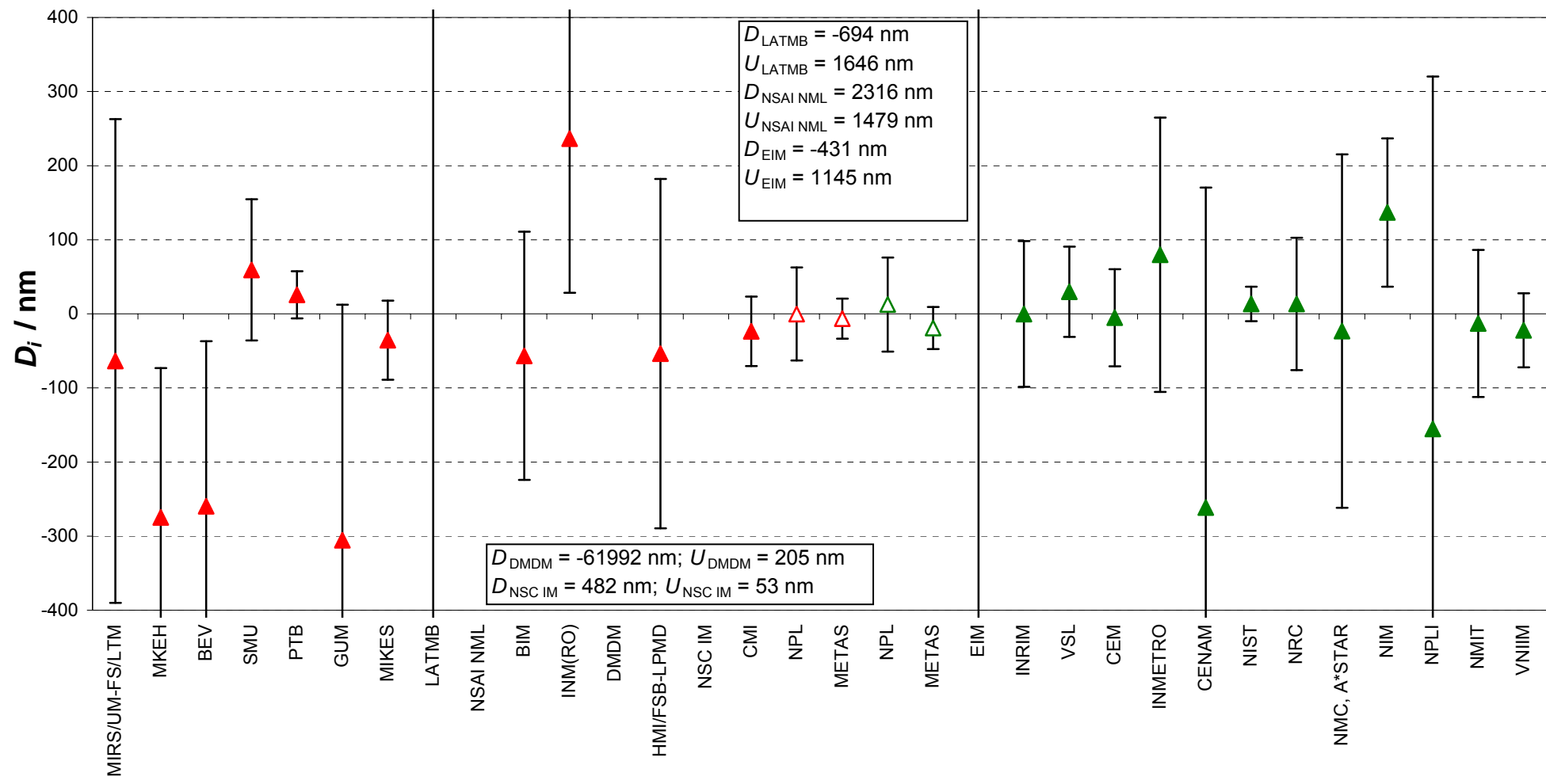
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 80$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



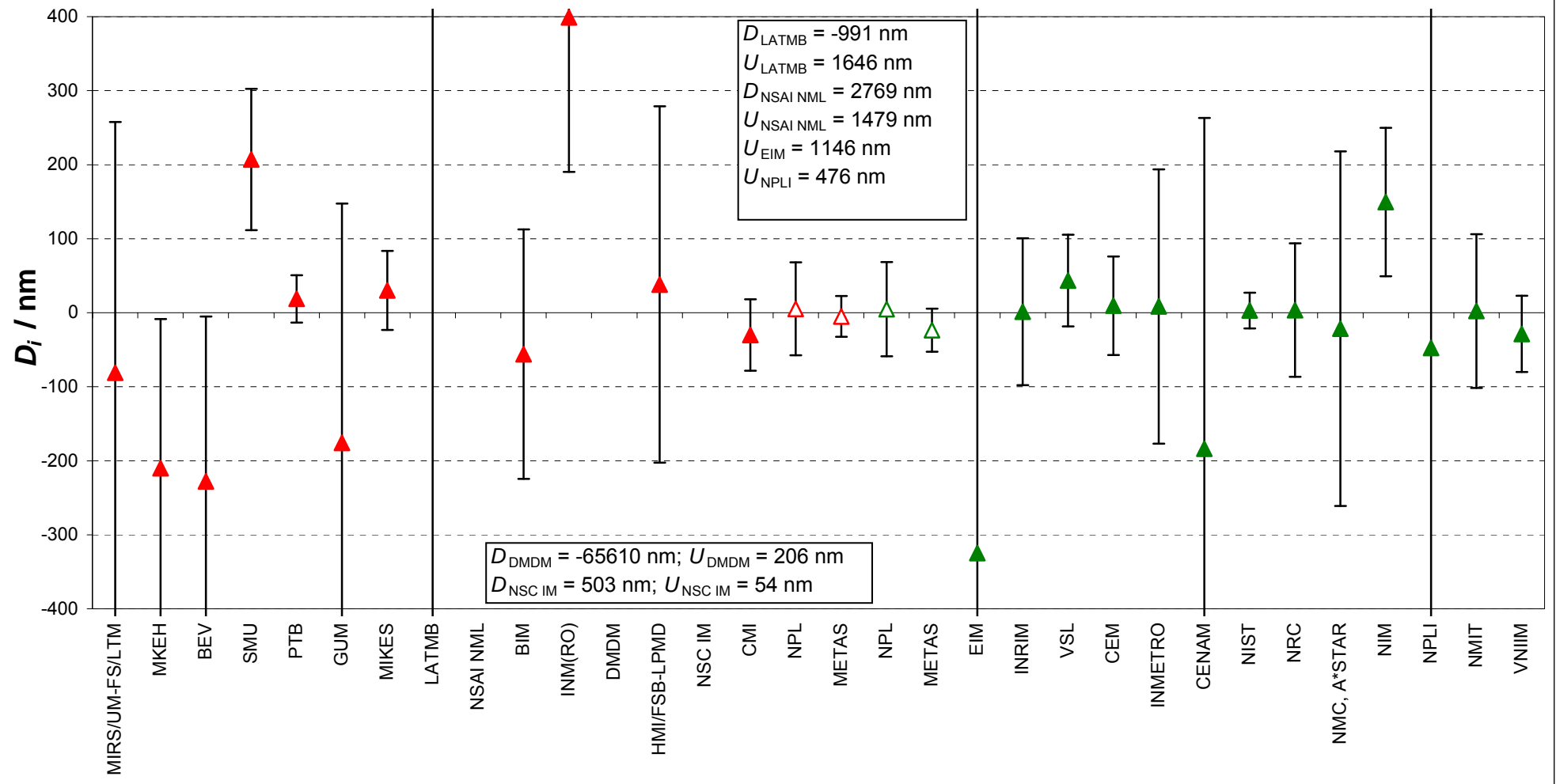
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 85$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



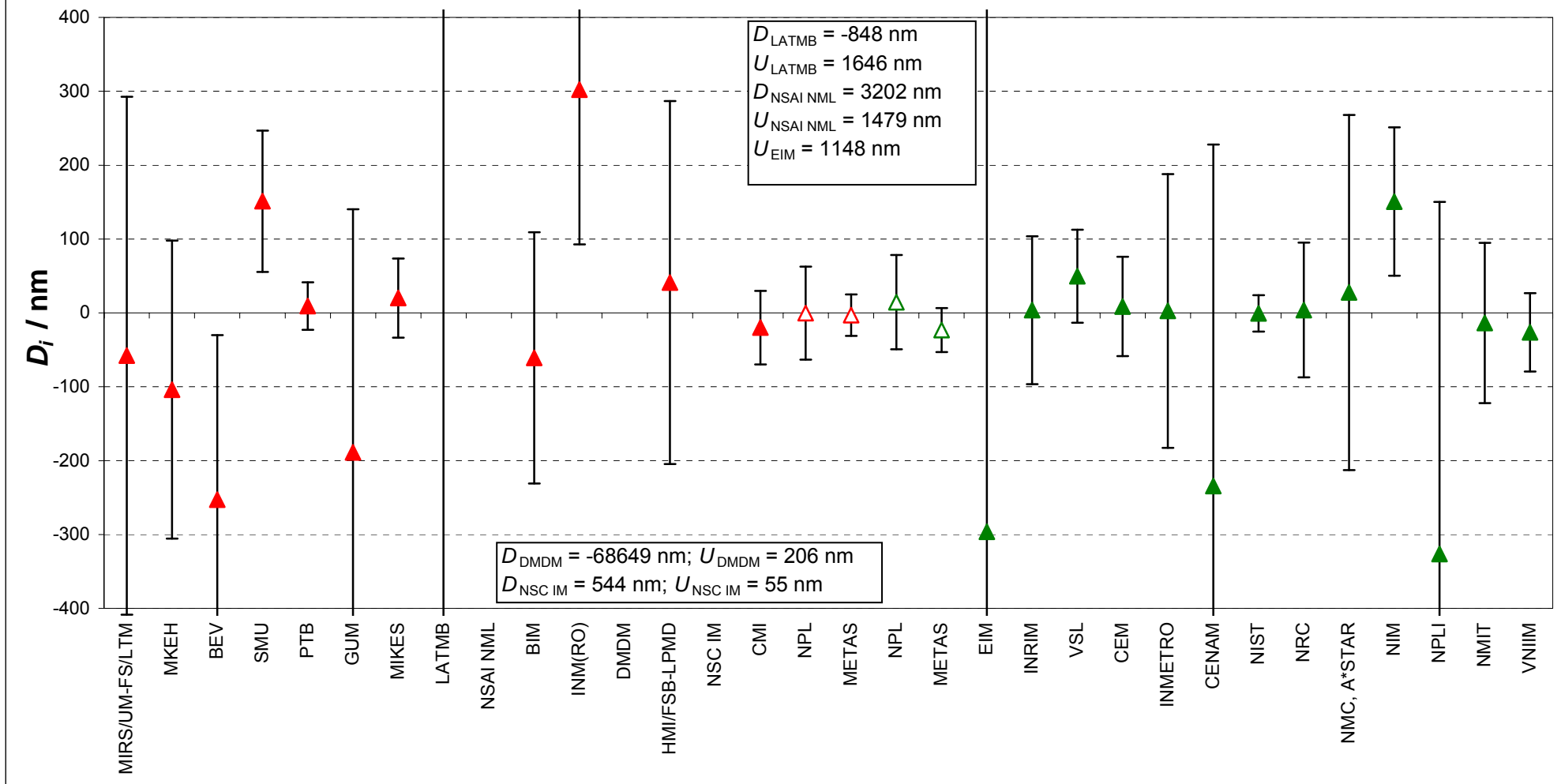
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 90$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



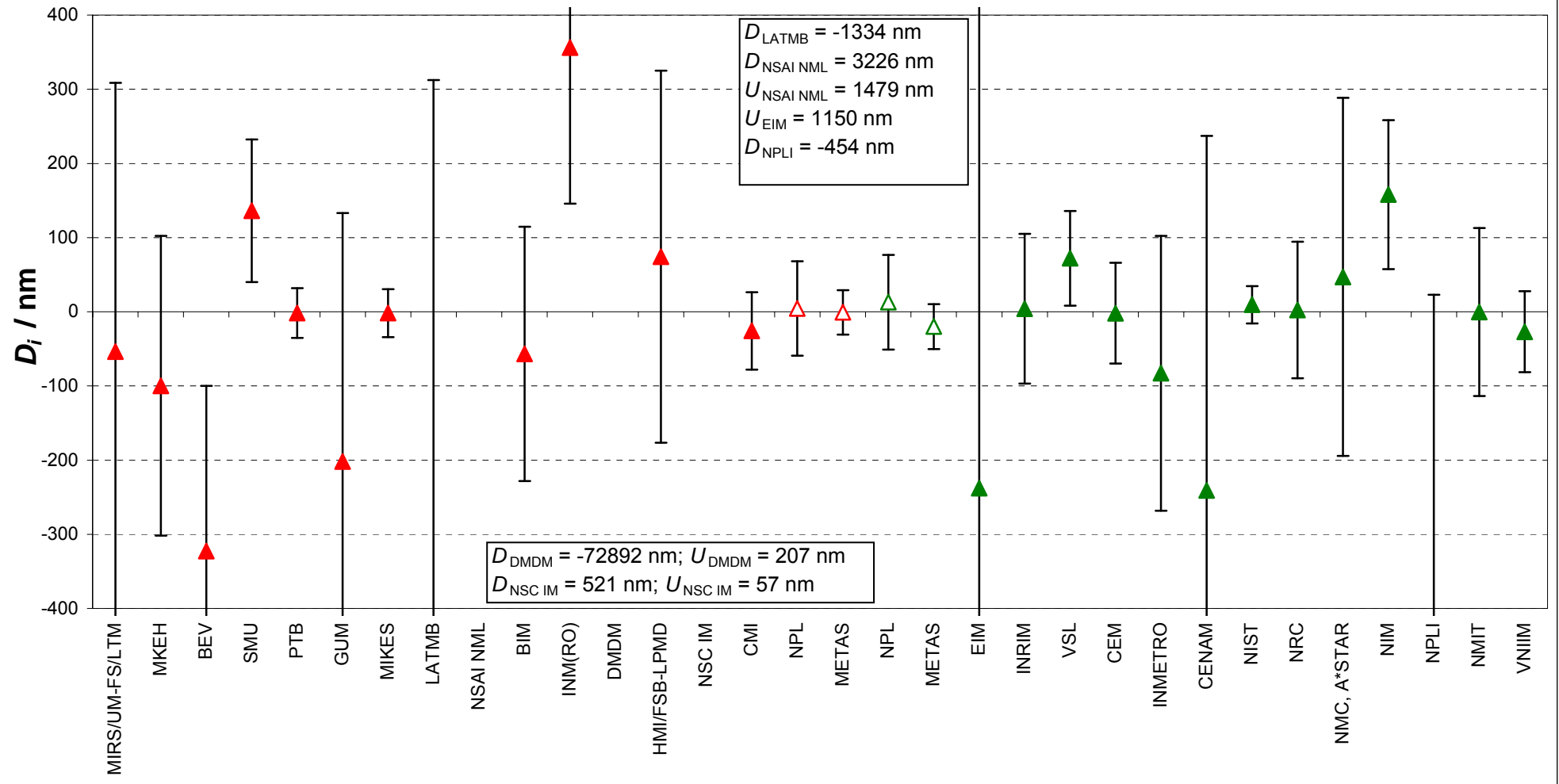
Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 95$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories

EUROMET.L-K7.2006 Linescale, nominal length $L = 100$ mm
 Degrees of equivalence: D_i and expanded uncertainty U_i ($k = 2$)



Red: participants in Group 1 Green: participants in Group 2 Open symbols: linking laboratories