Key comparison CCM.FF-K6.2011

MEASURAND : Relative error of a gas flow meter
GAS FLOW RATE : 2 m^3/h to 100 m^3/h
TRANSFER STANDARD : A rotary gas meter (see Section 3 of the Final Report)

x_i : relative error of the transfer standard as obtained by laboratory *i*
$x_i = 100\,[(V_t - V_s)/V_s]$
where V_t and V_s are the volumes indicated by the transfer standard (in m^3) and measured by the national reference standard (in m^3), respectively
U_i : expanded uncertainty ($k = 2$) of the measurement reported by laboratory *i*

	SMU		PTB		SE		NMIA		NIST		CENAM		KRISS		NIM		CMS		NMIJ		LNE-LADG	
Flow	x_i	U_i	x_i	U_i	x_i	U_i	x_i	U_i	x_i	U_i	x_i	U_i	x_i	U_i	x_i	U_i	x_i	U_i	x_i	U_i	x_i	U_i
l (m^3/h)	%		%		%		%		%		%		%		%		%		%		%	
2	**-0.16**	0.12	**-0.10**	0.05	**-0.18**	0.20	**-0.01**	0.16	**-0.15**	0.10	**-0.22**	0.17	**-**	-	**-**	-	**-0.24**	0.18	**-**	-	**-**	-
4.5	**-0.07**	0.12	**0.06**	0.05	**-0.10**	0.17	**0.10**	0.16	**0.00**	0.11	**-0.02**	0.16	**-**	-	**-**	-	**0.06**	0.18	**-**	-	**-**	-
6.6	**-0.01**	0.12	**0.11**	0.05	**-0.05**	0.17	**0.14**	0.16	**0.04**	0.11	**0.02**	0.16	**-**	-	**-**	-	**0.15**	0.15	**0.00**	0.28	**-**	-
9.1	**0.03**	0.12	**0.14**	0.05	**-0.04**	0.17	**0.26**	0.16	**0.08**	0.10	**0.09**	0.16	**0.02**	0.18	**0.16**	0.18	**0.17**	0.15	**-**	-	**-**	-
13.1	**0.07**	0.12	**0.17**	0.05	**0.01**	0.17	**0.29**	0.16	**0.10**	0.10	**0.14**	0.15	**0.07**	0.18	**0.17**	0.18	**0.18**	0.15	**0.16**	0.28	**0.11**	0.25
16	**0.08**	0.12	**0.17**	0.05	**0.02**	0.17	**0.29**	0.16	**0.14**	0.10	**0.23**	0.15	**0.16**	0.18	**0.18**	0.19	**0.22**	0.15	**0.21**	0.28	**0.15**	0.25
24	**0.11**	0.12	**0.19**	0.05	**0.07**	0.17	**0.31**	0.16	**0.17**	0.10	**0.27**	0.15	**0.18**	0.18	**0.22**	0.18	**0.22**	0.15	**0.24**	0.28	**0.17**	0.25
32	**0.13**	0.12	**0.21**	0.05	**0.15**	0.17	**0.33**	0.16	**0.18**	0.10	**0.27**	0.15	**0.26**	0.18	**0.25**	0.18	**0.24**	0.15	**0.22**	0.28	**0.21**	0.25
40	**0.15**	0.12	**0.23**	0.05	**0.11**	0.17	**0.36**	0.16	**0.21**	0.10	**0.30**	0.15	**0.25**	0.18	**0.29**	0.18	**0.25**	0.15	**0.24**	0.28	**0.23**	0.25
50	**0.18**	0.12	**0.24**	0.05	**0.17**	0.17	**0.38**	0.16	**0.24**	0.10	**0.31**	0.15	**0.27**	0.18	**0.32**	0.18	**0.25**	0.15	**0.20**	0.28	**0.25**	0.25
60	**0.20**	0.12	**0.25**	0.05	**0.15**	0.17	**0.38**	0.16	**0.25**	0.11	**0.30**	0.15	**0.28**	0.18	**0.35**	0.18	**0.27**	0.15	**0.23**	0.28	**0.26**	0.25
70	**0.23**	0.12	**0.27**	0.05	**0.22**	0.17	**0.40**	0.16	**0.27**	0.10	**0.31**	0.15	**0.30**	0.18	**0.38**	0.18	**-**	-	**0.22**	0.28	**0.25**	0.25
80	**0.27**	0.12	**0.29**	0.05	**0.24**	0.17	**0.40**	0.16	**0.29**	0.10	**0.32**	0.15	**0.30**	0.18	**0.40**	0.18	**-**	-	**0.24**	0.28	**0.29**	0.25
90	**0.31**	0.12	**0.31**	0.083	**0.25**	0.17	**0.40**	0.16	**0.29**	0.10	**0.32**	0.15	**0.32**	0.18	**0.41**	0.18	**-**	-	**0.26**	0.28	**0.27**	0.25
100	**0.35**	0.12	**0.35**	0.083	**0.25**	0.17	**0.41**	0.16	**0.31**	0.10	**0.33**	0.15	**0.30**	0.18	**0.42**	0.18	**-**	-	**0.21**	0.28	**0.28**	0.25

The standard uncertainty of the corrections and stability of the transfer standard is estimated to be equal to 0.031 % and is combined by root-sum-of-squares with the (U_i/2) values (see Section 5.6 of the Final Report). The resulting expanded uncertainty ($k = 2$), U_{is}, is given in the following tables.

Key comparison CCM.FF-K6.2011

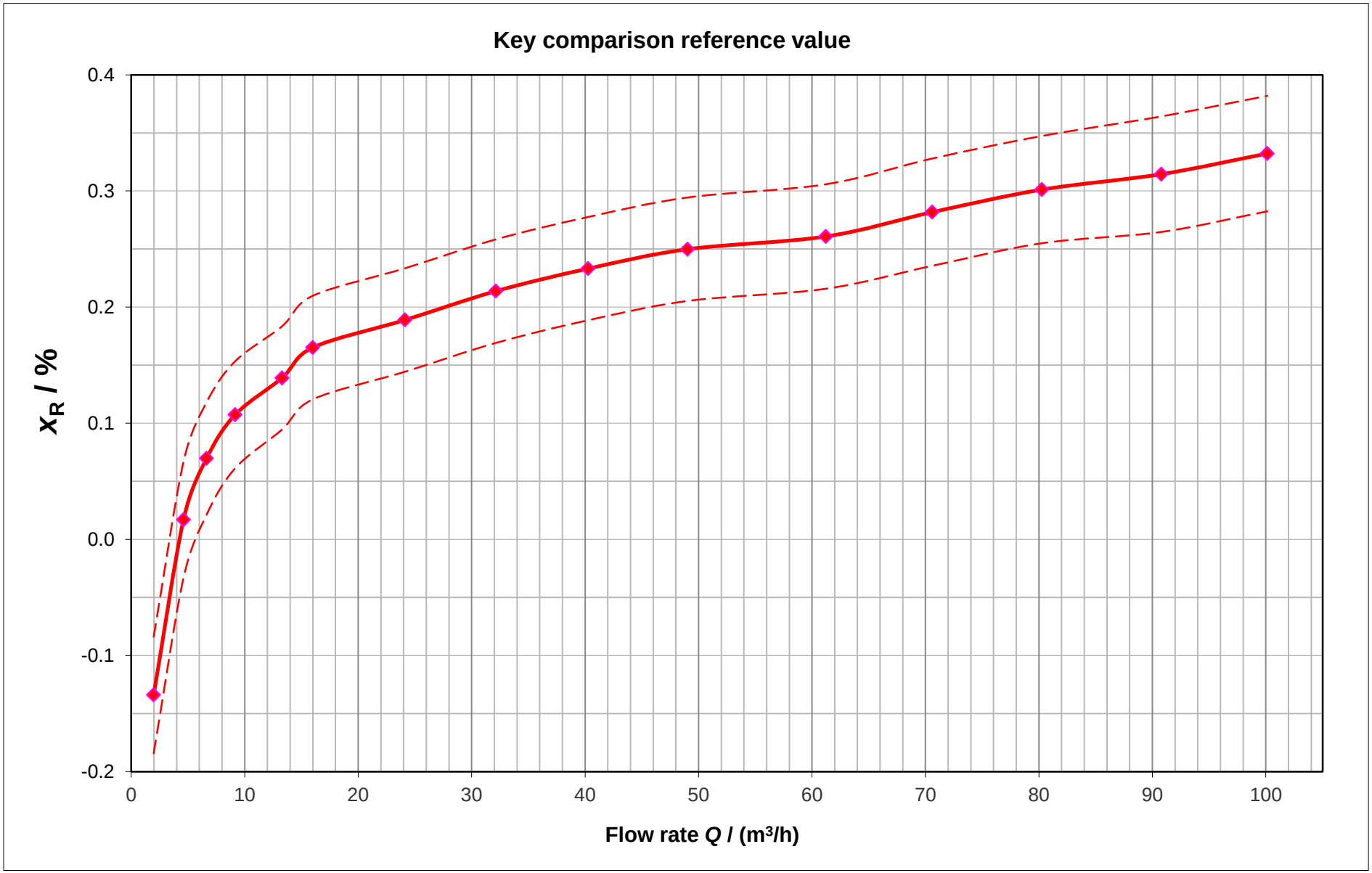
MEASURAND : Relative error of a gas flow meter
GAS FLOW RATE : 2 m^3/h to 100 m^3/h
TRANSFER STANDARD : A rotary gas meter (see Section 3 of the Final Report)

The computation of the key comparison reference value, x_R, and of its standard uncertainty, u_R, is explained in Section 6 of the Final Report.

Flow rate / (m^3/h)	x_R / %	u_R / %
2	-0.134	0.025
4.5	0.017	0.025
6.6	0.070	0.024
9.1	0.107	0.023
13.1	0.139	0.022
16	0.165	0.022
24	0.189	0.022
32	0.214	0.022
40	0.233	0.022
50	0.250	0.022
60	0.261	0.022
70	0.282	0.023
80	0.301	0.023
90	0.314	0.025
100	0.332	0.025

The degree of equivalence of laboratory *i* with respect to the key comparison reference value is given by a pair of terms: D_i and its expanded uncertainty (k = 2) computed as explained in Section 6 of the Final Report. The normalized degrees of equivalence En_i are also computed according to equation 16 on page 14 of the Final Report.

The pair-wise degrees of equivalence may be computed as explained in Section 6.4 of the Final Report. They are not reported here.



The two red dash curves correspond to ($x_R + U_R$) and ($x_R - U_R$), where U_R is the expanded uncertainty ($k = 2$) of x_R

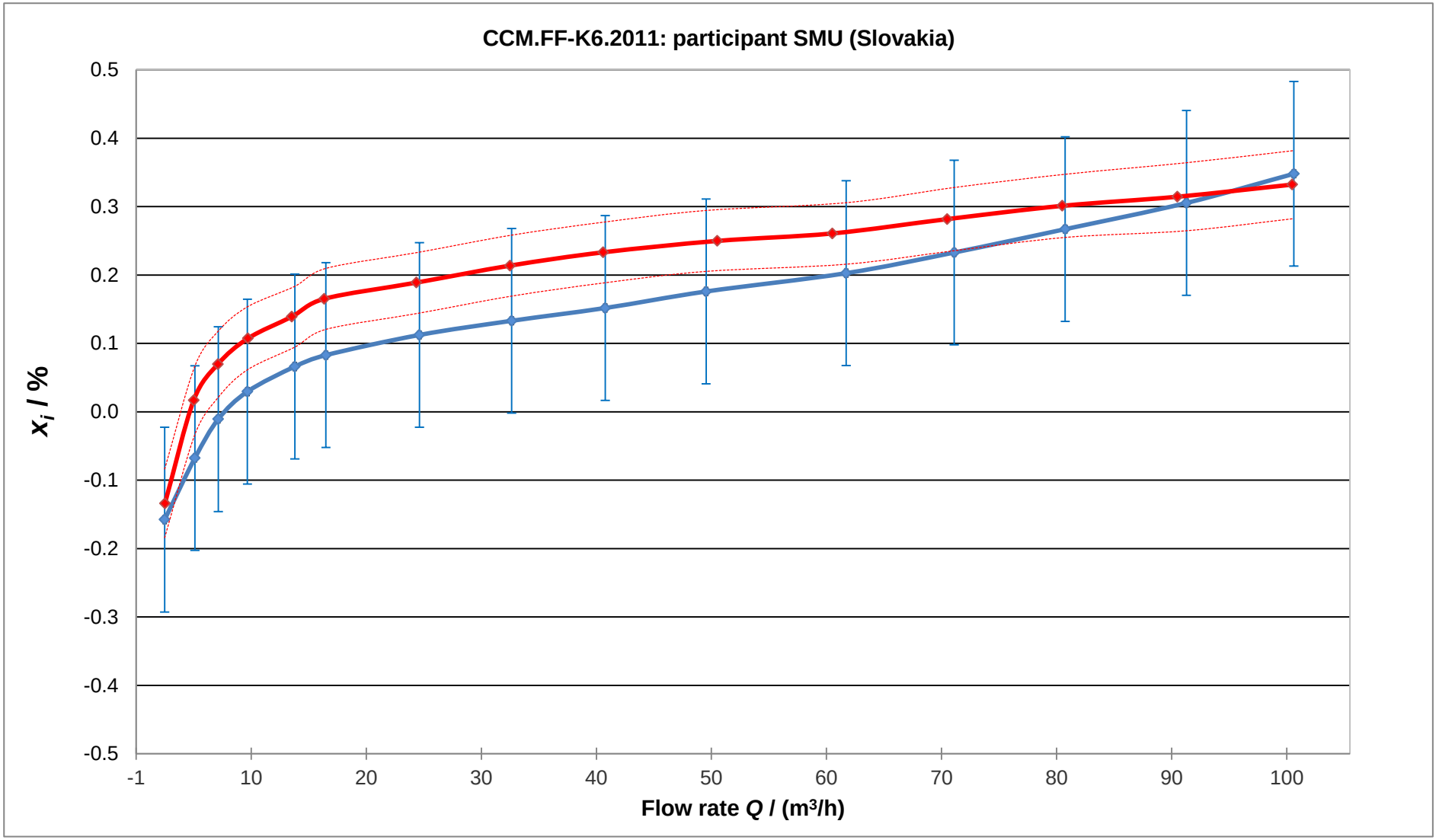
Key comparison CCM.FF-K6.2011

MEASURAND : Relative error of a gas flow meter
GAS FLOW RATE : 2 m^3/h to 100 m^3/h
TRANSFER STANDARD : A rotary gas meter (see Section 3 of the Final Report)

In the following, equivalence is demonstrated by providing the D_i and En_i values for one participating laboratory all over the range of flow rates. The curve of the key comparison reference value is added on the graphs showing the values x_i and U_{is} obtained by each participant.

Participant: SMU (Slovakia)

Flow rate l (m^3/h)	x_i / %	U_i / %	U_{is} / %	D_i / %	En_i
1.98	**-0.16**	0.12	**0.135**	**-0.02**	0.19
4.60	**-0.07**	0.12	**0.135**	**-0.09**	0.67
6.64	**-0.01**	0.12	**0.135**	**-0.08**	0.64
9.17	**0.03**	0.12	**0.135**	**-0.08**	0.61
13.29	**0.07**	0.12	**0.135**	**-0.07**	0.57
16.00	**0.08**	0.12	**0.135**	**-0.08**	0.65
24.12	**0.11**	0.12	**0.135**	**-0.08**	0.60
32.14	**0.13**	0.12	**0.135**	**-0.08**	0.63
40.27	**0.15**	0.12	**0.135**	**-0.08**	0.64
49.04	**0.18**	0.12	**0.135**	**-0.07**	0.58
61.21	**0.20**	0.12	**0.135**	**-0.06**	0.46
70.60	**0.23**	0.12	**0.135**	**-0.05**	0.38
80.25	**0.27**	0.12	**0.135**	**-0.03**	0.27
90.79	**0.31**	0.12	**0.135**	**-0.01**	0.07
100.13	**0.35**	0.12	**0.135**	**0.02**	0.13



The solid blue curve represents the participant's results, x_i, with expanded uncertainty bars (k = 2), U_{iS}

The solid red curve represents the key comparison reference value

The two red dash curves correspond to (x_R + U_R) and (x_R - U_R), where U_R is the expanded uncertainty (k = 2) of x_R

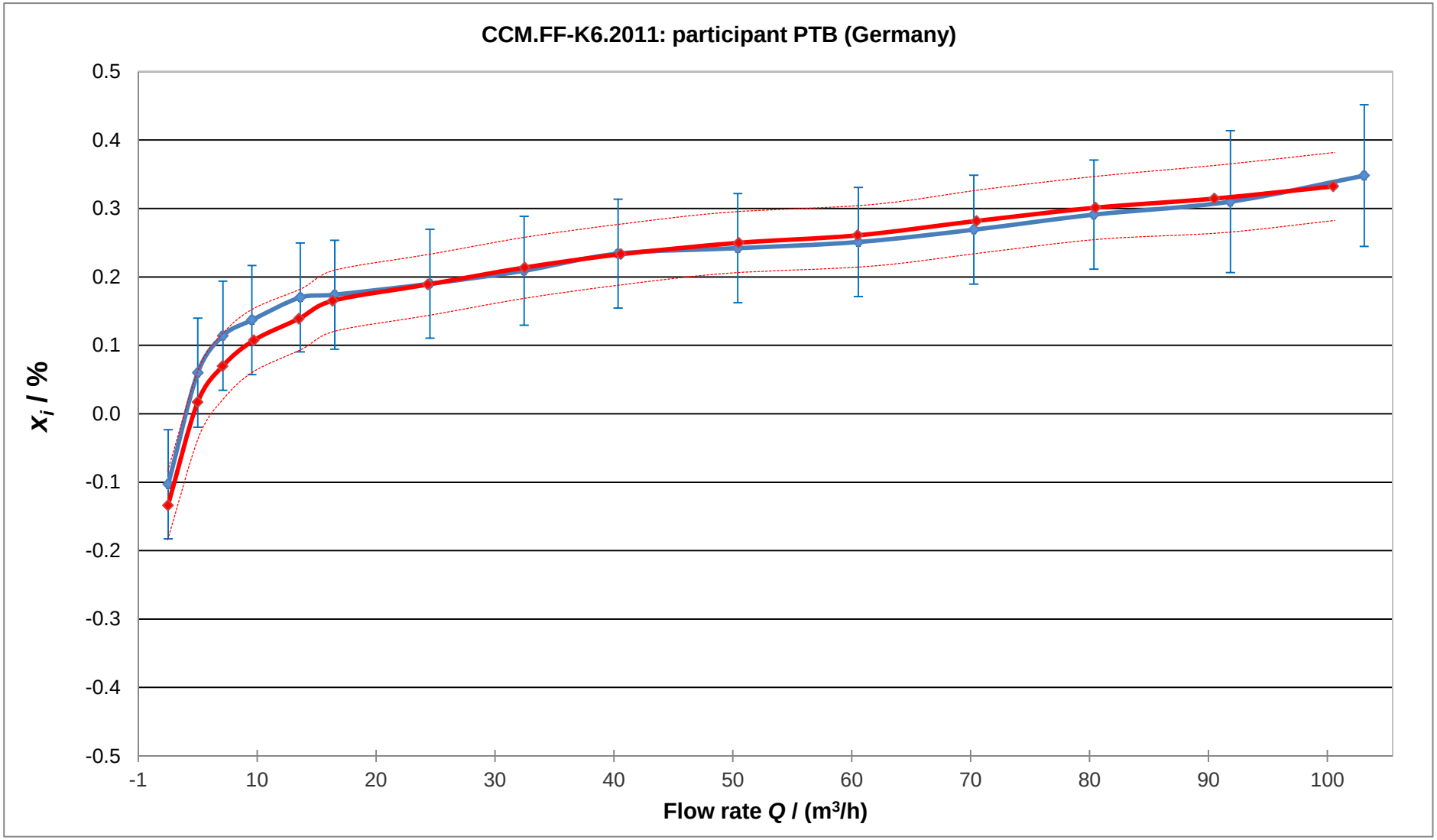
Key comparison CCM.FF-K6.2011

MEASURAND : Relative error of a gas flow meter
GAS FLOW RATE : 2 m^3/h to 100 m^3/h
TRANSFER STANDARD : A rotary gas meter (see Section 3 of the Final Report)

In the following, equivalence is demonstrated by providing the D_i and En_i values for one participating laboratory all over the range of flow rates. The curve of the key comparison reference value is added on the graphs showing the values x_i and U_{is} obtained by each participant.

Participant: PTB (Germany)

Flow rate l (m^3/h)	x_i / %	U_i / %	U_{is} / %	D_i / %	En_i
2.02	**-0.10**	0.05	**0.080**	**0.03**	0.50
4.51	**0.06**	0.05	**0.080**	**0.04**	0.70
6.62	**0.11**	0.05	**0.080**	**0.04**	0.70
9.06	**0.14**	0.05	**0.080**	**0.03**	0.46
13.13	**0.17**	0.05	**0.080**	**0.03**	0.47
16.02	**0.17**	0.05	**0.080**	**0.01**	0.13
24.03	**0.19**	0.05	**0.080**	**0.00**	0.02
31.95	**0.21**	0.05	**0.080**	**0.00**	0.07
39.85	**0.23**	0.05	**0.080**	**0.00**	0.01
49.92	**0.24**	0.05	**0.080**	**-0.01**	0.12
60.06	**0.25**	0.05	**0.080**	**-0.01**	0.15
69.77	**0.27**	0.05	**0.080**	**-0.01**	0.20
79.87	**0.29**	0.05	**0.080**	**-0.01**	0.16
91.35	**0.31**	0.083	**0.104**	**0.00**	0.05
102.60	**0.35**	0.083	**0.104**	**0.02**	0.17



The solid blue curve represents the participant's results, x_i, with expanded uncertainty bars ($k = 2$), $U_{i\,S}$

The solid red curve represents the key comparison reference value

The two red dash curves correspond to ($x_R + U_R$) and ($x_R - U_R$), where U_R is the expanded uncertainty ($k = 2$) of x_R

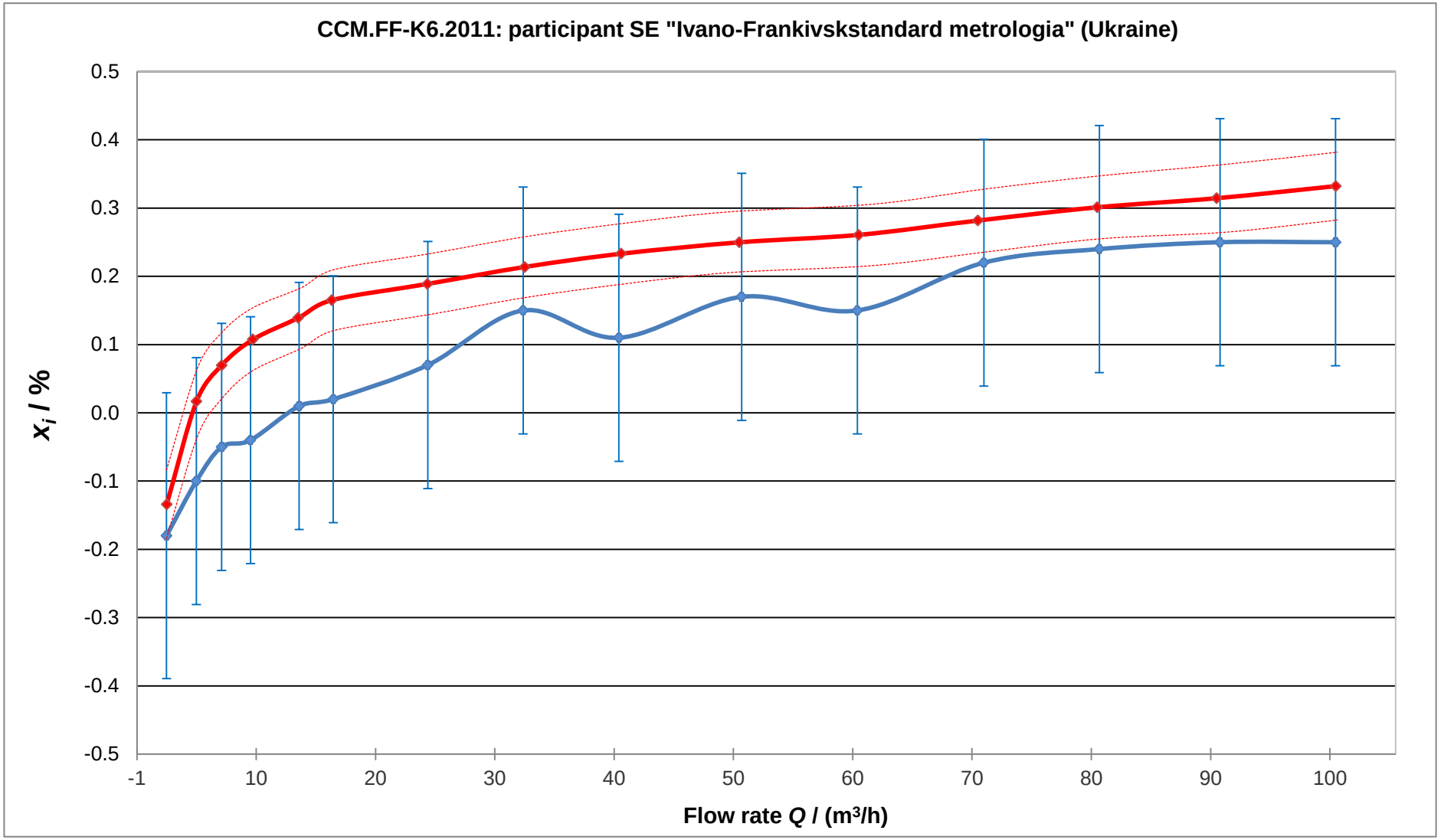
Key comparison CCM.FF-K6.2011

MEASURAND : Relative error of a gas flow meter
GAS FLOW RATE : 2 m^3/h to 100 m^3/h
TRANSFER STANDARD : A rotary gas meter (see Section 3 of the Final Report)

In the following, equivalence is demonstrated by providing the D_i and En_i values for one participating laboratory all over the range of flow rates. The curve of the key comparison reference value is added on the graphs showing the values x_i and U_{is} obtained by each participant.

Participant: SE "Ivano-Frankivskstandard metrologia" (Ukraine)

Flow rate q (m^3/h)	x_i / %	U_i / %	U_{is} / %	D_i / %	En_i
1.98	**-0.18**	0.20	**0.209**	**-0.05**	0.23
4.48	**-0.10**	0.17	**0.181**	**-0.12**	0.67
6.60	**-0.05**	0.17	**0.181**	**-0.12**	0.69
9.02	**-0.04**	0.17	**0.181**	**-0.15**	0.84
13.10	**0.01**	0.17	**0.181**	**-0.13**	0.74
15.96	**0.02**	0.17	**0.181**	**-0.15**	0.83
23.88	**0.07**	0.17	**0.181**	**-0.12**	0.68
31.87	**0.15**	0.17	**0.181**	**-0.06**	0.36
39.90	**0.11**	0.17	**0.181**	**-0.12**	0.70
50.19	**0.17**	0.17	**0.181**	**-0.08**	0.46
59.89	**0.15**	0.17	**0.181**	**-0.11**	0.63
70.49	**0.22**	0.17	**0.181**	**-0.06**	0.35
80.17	**0.24**	0.17	**0.181**	**-0.06**	0.35
90.28	**0.25**	0.17	**0.181**	**-0.06**	0.37
99.97	**0.25**	0.17	**0.181**	**-0.08**	0.47



The solid blue curve represents the participant's results, x_i, with expanded uncertainty bars ($k = 2$), U_{iS}

The solid red curve represents the key comparison reference value

The two red dash curves correspond to ($x_R + U_R$) and ($x_R - U_R$), where U_R is the expanded uncertainty ($k = 2$) of x_R

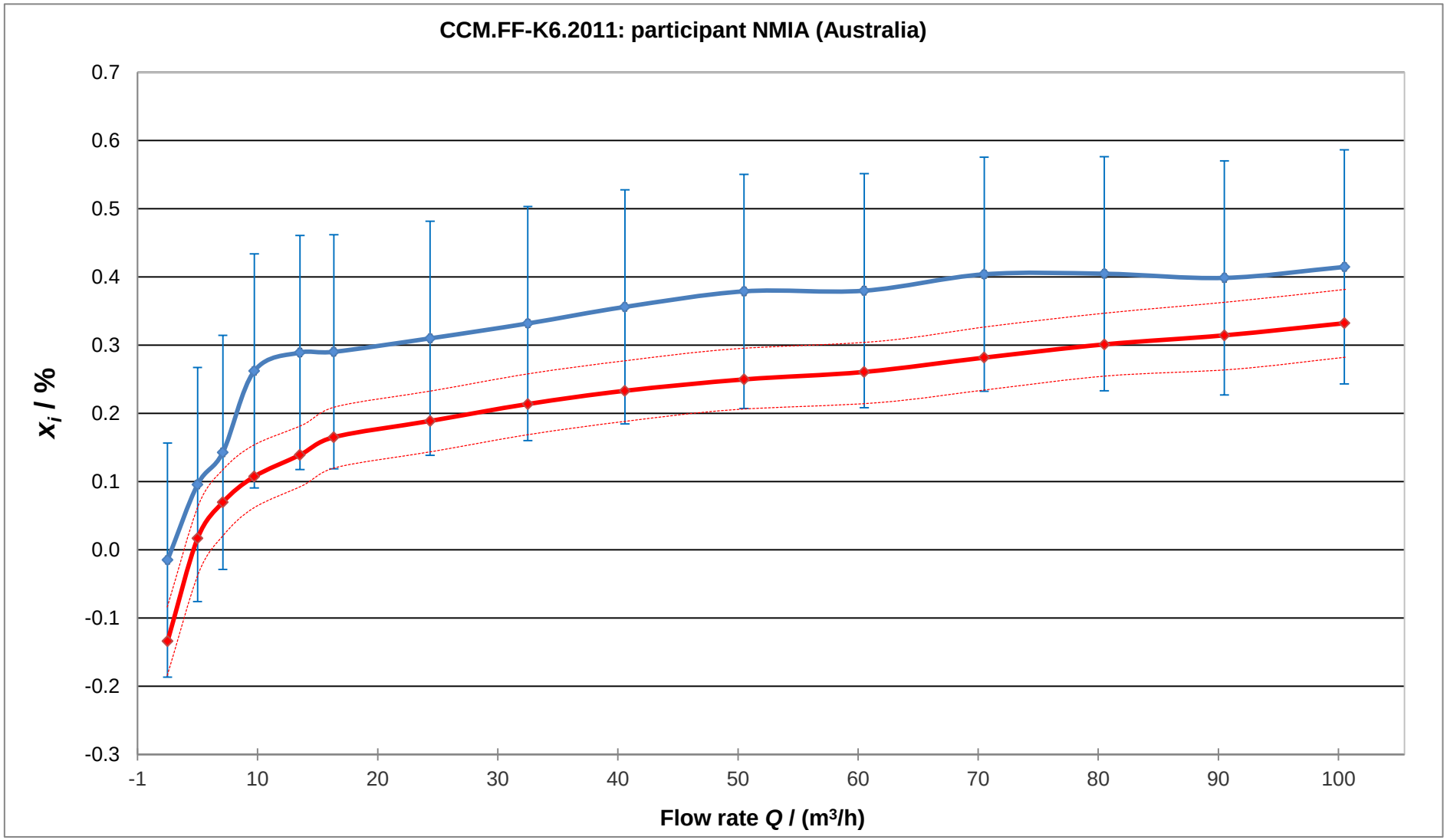
Key comparison CCM.FF-K6.2011

MEASURAND : Relative error of a gas flow meter
GAS FLOW RATE : 2 m^3/h to 100 m^3/h
TRANSFER STANDARD : A rotary gas meter (see Section 3 of the Final Report)

In the following, equivalence is demonstrated by providing the D_i and En_i values for one participating laboratory all over the range of flow rates. The curve of the key comparison reference value is added on the graphs showing the values x_i and U_{is} obtained by each participant.

Participant: NMIA (Australia)

Flow rate l (m^3/h)	x_i / %	U_i / %	U_{is} / %	D_i / %	En_i
2.00	**-0.01**	0.16	**0.172**	**0.12**	0.73
4.50	**0.10**	0.16	**0.172**	**0.08**	0.48
6.60	**0.14**	0.16	**0.172**	**0.07**	0.44
9.22	**0.26**	0.16	**0.172**	**0.15**	0.94
13.02	**0.29**	0.16	**0.172**	**0.15**	0.91
15.84	**0.29**	0.16	**0.172**	**0.13**	0.76
23.86	**0.31**	0.16	**0.172**	**0.12**	0.73
32.00	**0.33**	0.16	**0.172**	**0.12**	0.71
40.08	**0.36**	0.16	**0.172**	**0.12**	0.74
50.00	**0.38**	0.16	**0.172**	**0.13**	0.78
60.01	**0.38**	0.16	**0.172**	**0.12**	0.72
70.00	**0.40**	0.16	**0.172**	**0.12**	0.74
80.01	**0.40**	0.16	**0.172**	**0.10**	0.63
90.00	**0.40**	0.16	**0.172**	**0.08**	0.51
100.00	**0.41**	0.16	**0.172**	**0.08**	0.50



The solid blue curve represents the participant's results, x_i, with expanded uncertainty bars ($k = 2$), U_{iS}

The solid red curve represents the key comparison reference value

The two red dash curves correspond to ($x_R + U_R$) and ($x_R - U_R$), where U_R is the expanded uncertainty ($k = 2$) of x_R

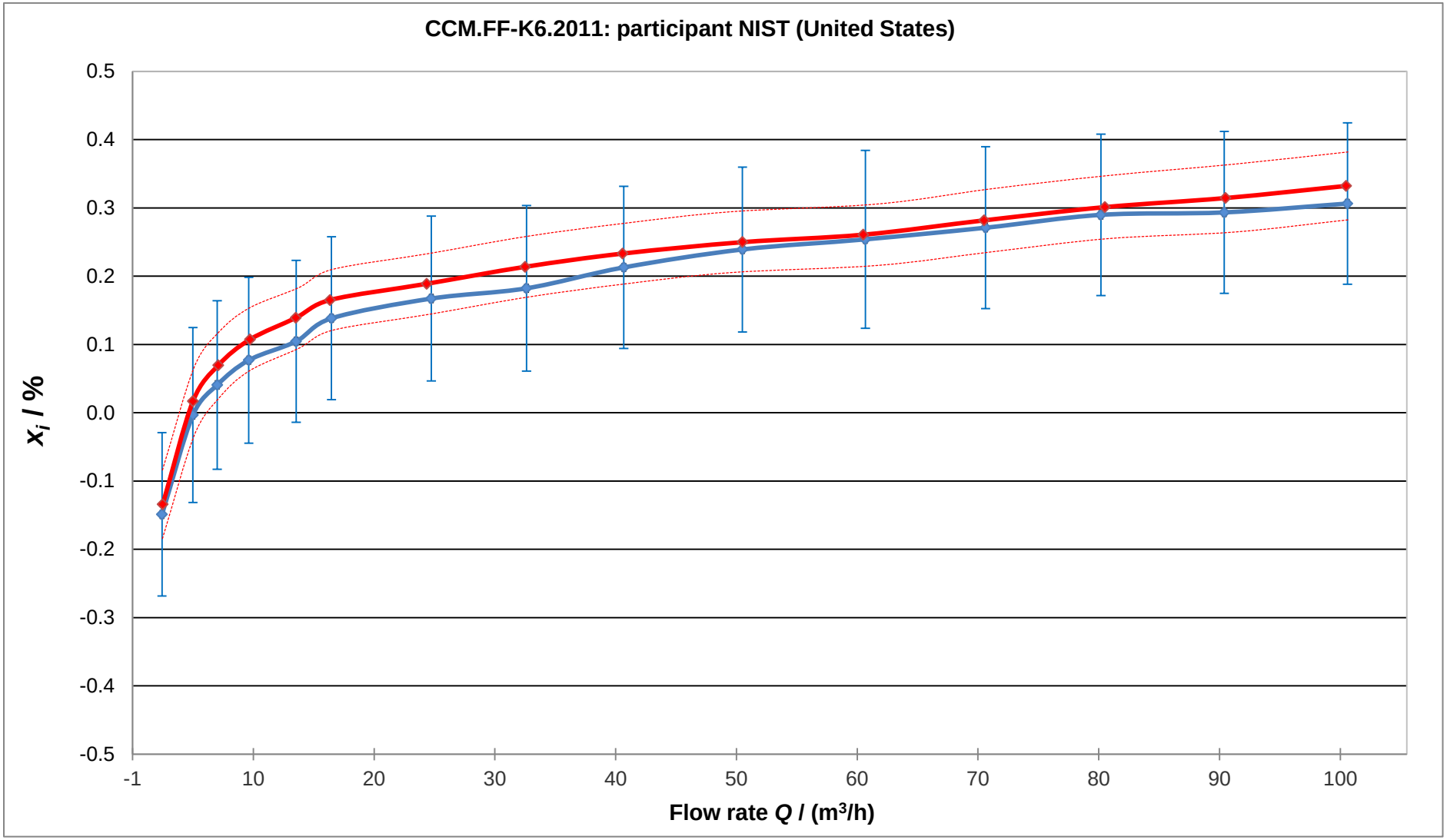
Key comparison CCM.FF-K6.2011

MEASURAND : Relative error of a gas flow meter
GAS FLOW RATE : 2 m^3/h to 100 m^3/h
TRANSFER STANDARD : A rotary gas meter (see Section 3 of the Final Report)

In the following, equivalence is demonstrated by providing the D_i and En_i values for one participating laboratory all over the range of flow rates. The curve of the key comparison reference value is added on the graphs showing the values x_i and U_{is} obtained by each participant.

Participant: NIST (United States)

Flow rate l (m^3/h)	x_i / %	U_i / %	U_{is} / %	D_i / %	En_i
1.94	**-0.15**	0.10	**0.120**	**-0.02**	0.14
4.50	**0.00**	0.11	**0.128**	**-0.02**	0.17
6.51	**0.04**	0.11	**0.123**	**-0.03**	0.25
9.12	**0.08**	0.10	**0.121**	**-0.03**	0.27
13.05	**0.10**	0.10	**0.118**	**-0.03**	0.31
15.97	**0.14**	0.10	**0.119**	**-0.03**	0.24
24.24	**0.17**	0.10	**0.121**	**-0.02**	0.19
32.12	**0.18**	0.10	**0.121**	**-0.03**	0.28
40.17	**0.21**	0.10	**0.119**	**-0.02**	0.18
50.00	**0.24**	0.10	**0.121**	**-0.01**	0.10
60.18	**0.25**	0.11	**0.130**	**-0.01**	0.06
70.13	**0.27**	0.10	**0.118**	**-0.01**	0.10
79.68	**0.29**	0.10	**0.118**	**-0.01**	0.10
89.90	**0.29**	0.10	**0.118**	**-0.02**	0.20
100.09	**0.31**	0.10	**0.118**	**-0.03**	0.24



The solid blue curve represents the participant's results, x_i, with expanded uncertainty bars (k = 2), U_{iS}

The solid red curve represents the key comparison reference value

The two red dash curves correspond to (x_R + U_R) and (x_R - U_R), where U_R is the expanded uncertainty (k = 2) of x_R

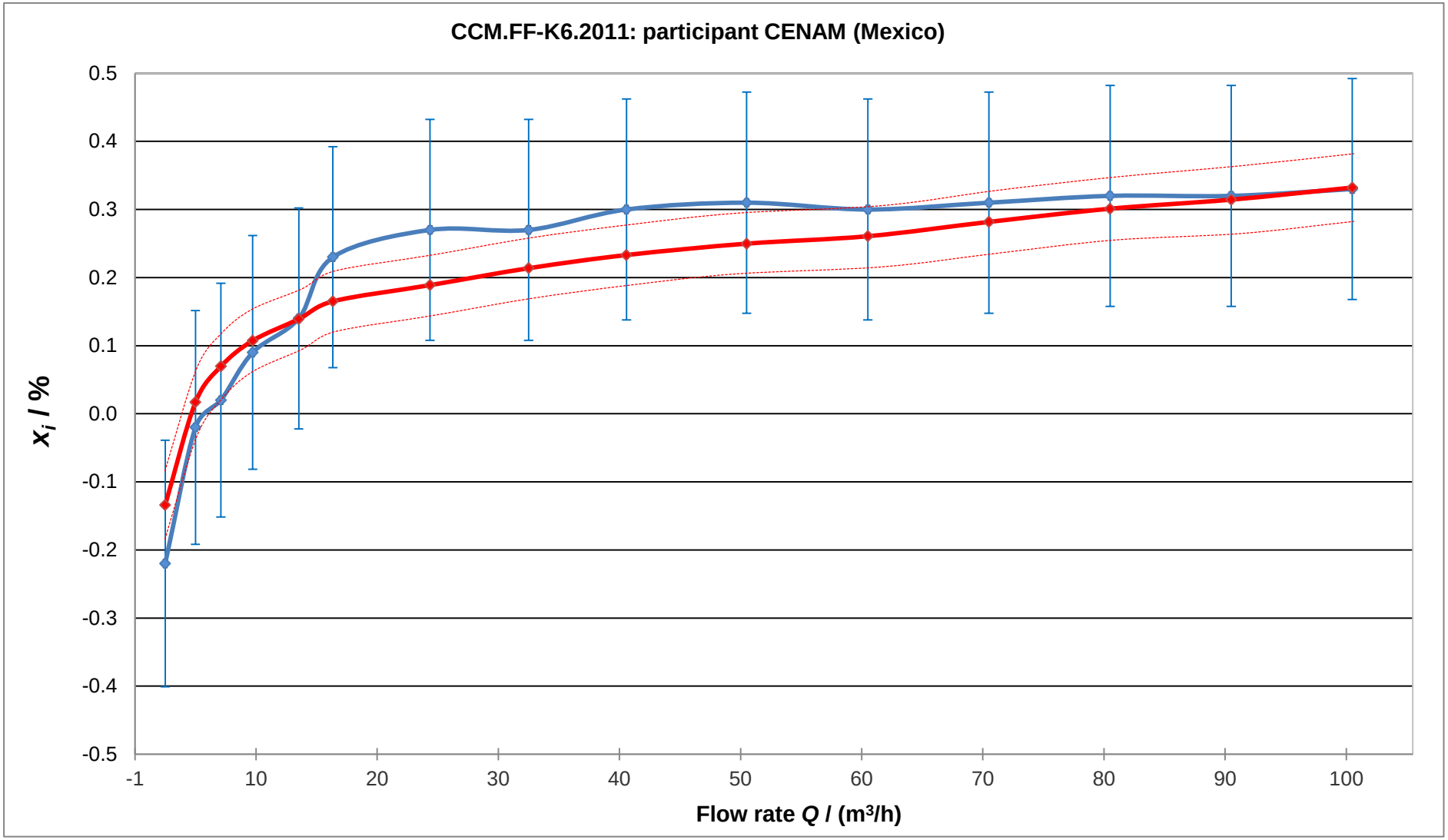
Key comparison CCM.FF-K6.2011

MEASURAND : Relative error of a gas flow meter
GAS FLOW RATE : 2 m^3/h to 100 m^3/h
TRANSFER STANDARD : A rotary gas meter (see Section 3 of the Final Report)

In the following, equivalence is demonstrated by providing the D_i and En_i values for one participating laboratory all over the range of flow rates. The curve of the key comparison reference value is added on the graphs showing the values x_i and U_{is} obtained by each participant.

Participant: CENAM (Mexico)

Flow rate l (m^3/h)	x_i / %	U_i / %	U_{is} / %	D_i / %	En_i
2.00	**-0.22**	0.17	**0.181**	**-0.09**	0.49
4.50	**-0.02**	0.16	**0.172**	**-0.04**	0.22
6.60	**0.02**	0.16	**0.172**	**-0.05**	0.30
9.22	**0.09**	0.16	**0.172**	**-0.02**	0.11
13.02	**0.14**	0.15	**0.162**	**0.00**	0.01
15.84	**0.23**	0.15	**0.162**	**0.06**	0.42
23.86	**0.27**	0.15	**0.162**	**0.08**	0.52
32.00	**0.27**	0.15	**0.162**	**0.06**	0.36
40.08	**0.30**	0.15	**0.162**	**0.07**	0.43
50.00	**0.31**	0.15	**0.162**	**0.06**	0.39
60.01	**0.30**	0.15	**0.162**	**0.04**	0.25
70.00	**0.31**	0.15	**0.162**	**0.03**	0.18
80.01	**0.32**	0.15	**0.162**	**0.02**	0.12
90.00	**0.32**	0.15	**0.162**	**0.01**	0.04
100.00	**0.33**	0.15	**0.162**	**0.00**	0.01



The solid blue curve represents the participant's results, x_i, with expanded uncertainty bars (k = 2), U_{iS}

The solid red curve represents the key comparison reference value

The two red dash curves correspond to (x_R + U_R) and (x_R - U_R), where U_R is the expanded uncertainty (k = 2) of x_R

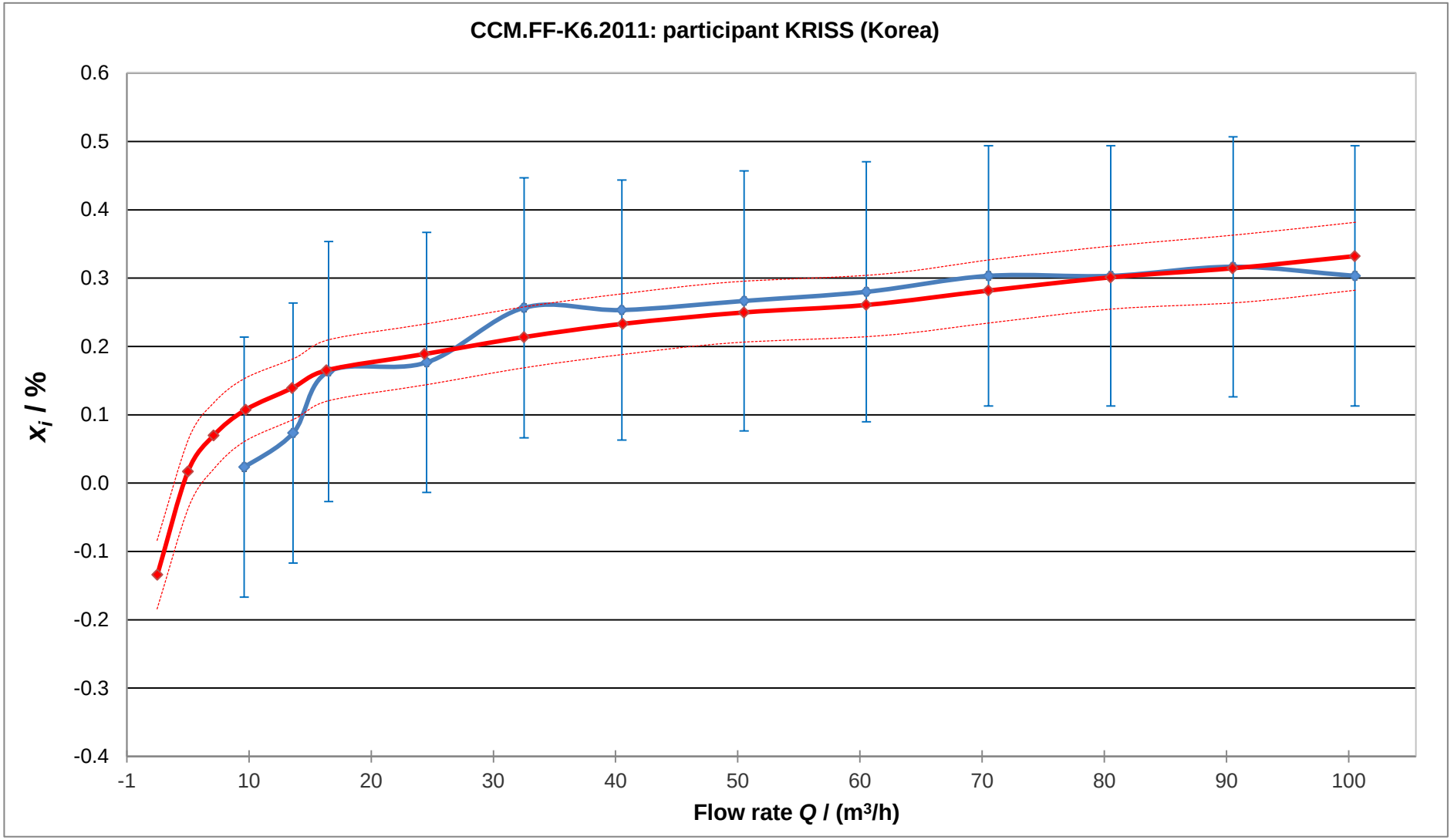
Key comparison CCM.FF-K6.2011

MEASURAND : Relative error of a gas flow meter
GAS FLOW RATE : 2 m^3/h to 100 m^3/h
TRANSFER STANDARD : A rotary gas meter (see Section 3 of the Final Report)

In the following, equivalence is demonstrated by providing the D_i and En_i values for one participating laboratory all over the range of flow rates. The curve of the key comparison reference value is added on the graphs showing the values x_i and U_{is} obtained by each participant.

Participant: KRISS (Korea)

Flow rate l (m^3/h)	x_i / %	U_i / %	U_{is} / %	D_i / %	En_i
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
9.11	**0.02**	0.18	**0.190**	**-0.08**	0.46
13.11	**0.07**	0.18	**0.190**	**-0.07**	0.35
16.02	**0.16**	0.18	**0.190**	**0.00**	0.01
24.04	**0.18**	0.18	**0.190**	**-0.01**	0.07
32.01	**0.26**	0.18	**0.190**	**0.04**	0.23
40.01	**0.25**	0.18	**0.190**	**0.02**	0.11
50.02	**0.27**	0.18	**0.190**	**0.02**	0.09
60.03	**0.28**	0.18	**0.190**	**0.02**	0.10
70.02	**0.30**	0.18	**0.190**	**0.02**	0.12
80.03	**0.30**	0.18	**0.190**	**0.00**	0.01
90.04	**0.32**	0.18	**0.190**	**0.00**	0.01
100.01	**0.30**	0.18	**0.190**	**-0.03**	0.16



The solid blue curve represents the participant's results, x_i, with expanded uncertainty bars (k = 2), U_{iS}

The solid red curve represents the key comparison reference value

The two red dash curves correspond to (x_R + U_R) and (x_R - U_R), where U_R is the expanded uncertainty (k = 2) of x_R

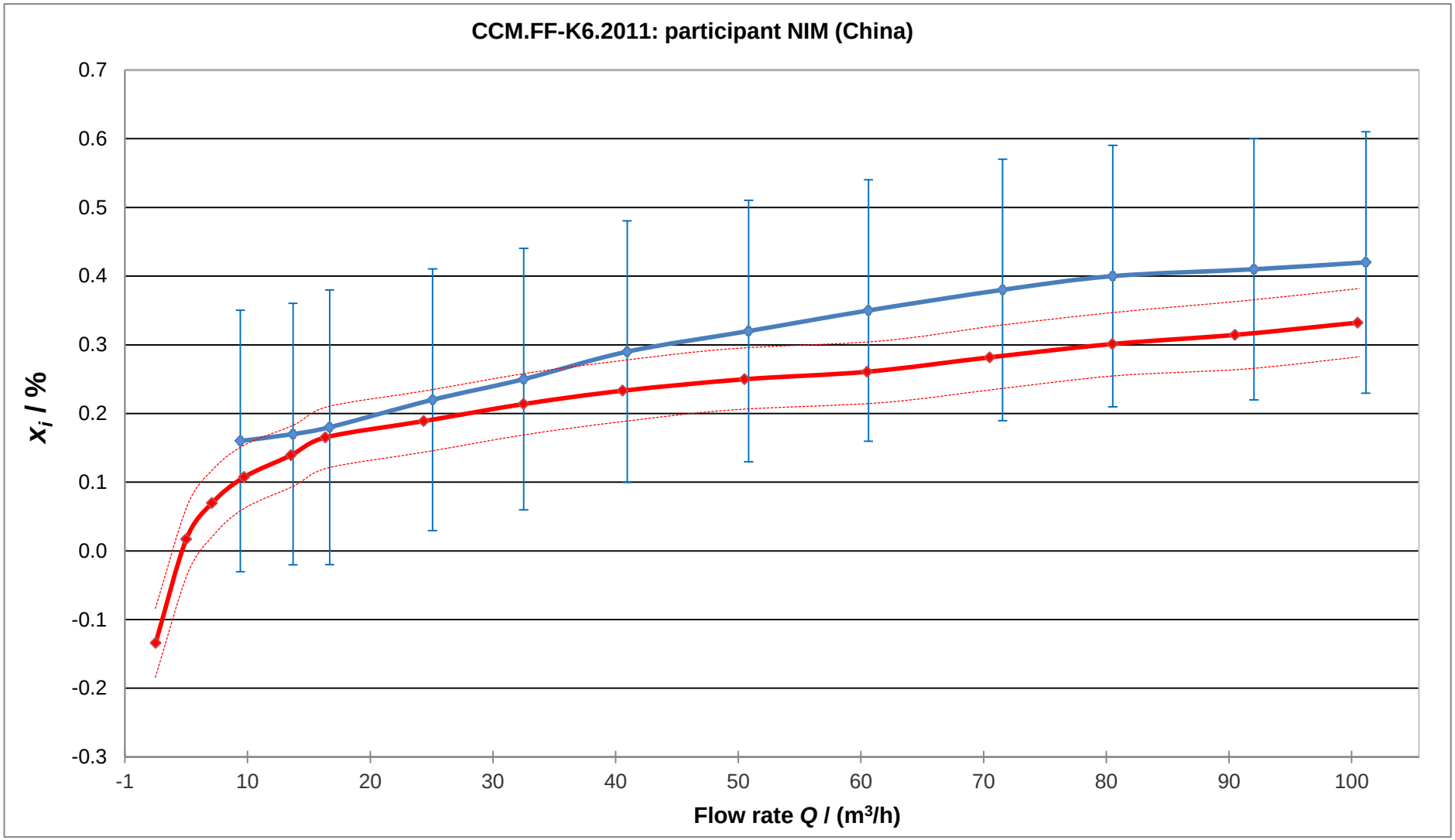
Key comparison CCM.FF-K6.2011

MEASURAND : Relative error of a gas flow meter
GAS FLOW RATE : 2 m^3/h to 100 m^3/h
TRANSFER STANDARD : A rotary gas meter (see Section 3 of the Final Report)

In the following, equivalence is demonstrated by providing the D_i and En_i values for one participating laboratory all over the range of flow rates. The curve of the key comparison reference value is added on the graphs showing the values x_i and U_{is} obtained by each participant.

Participant: NIM (China)

Flow rate l (m^3/h)	x_i / %	U_i / %	U_{is} / %	D_i / %	En_i
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
8.9	**0.16**	0.18	**0.190**	**0.05**	0.28
13.2	**0.17**	0.18	**0.190**	**0.03**	0.17
16.2	**0.18**	0.19	**0.200**	**0.01**	0.08
24.6	**0.22**	0.18	**0.190**	**0.03**	0.17
32.0	**0.25**	0.18	**0.190**	**0.04**	0.20
40.4	**0.29**	0.18	**0.190**	**0.06**	0.31
50.3	**0.32**	0.18	**0.190**	**0.07**	0.38
60.11	**0.35**	0.18	**0.190**	**0.09**	0.48
71.05	**0.38**	0.18	**0.190**	**0.10**	0.53
80.03	**0.40**	0.18	**0.190**	**0.10**	0.54
91.54	**0.41**	0.18	**0.190**	**0.10**	0.52
100.66	**0.42**	0.18	**0.190**	**0.09**	0.48



The solid blue curve represents the participant's results, x_i, with expanded uncertainty bars ($k = 2$), U_{iS}

The solid red curve represents the key comparison reference value

The two red dash curves correspond to ($x_R + U_R$) and ($x_R - U_R$), where U_R is the expanded uncertainty ($k = 2$) of x_R

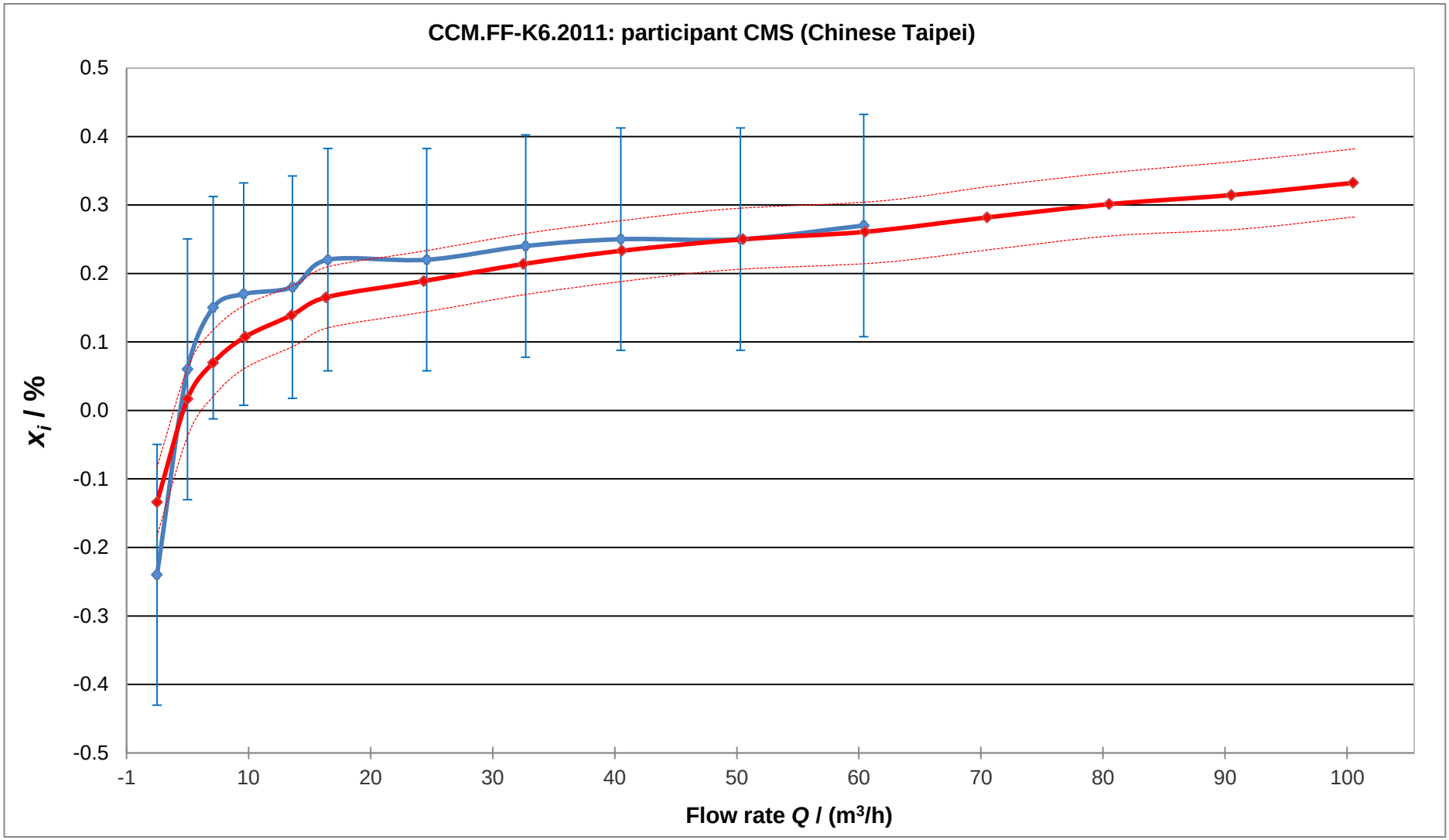
Key comparison CCM.FF-K6.2011

MEASURAND : Relative error of a gas flow meter
GAS FLOW RATE : 2 m^3/h to 100 m^3/h
TRANSFER STANDARD : A rotary gas meter (see Section 3 of the Final Report)

In the following, equivalence is demonstrated by providing the D_i and En_i values for one participating laboratory all over the range of flow rates. The curve of the key comparison reference value is added on the graphs showing the values x_i and U_{is} obtained by each participant.

Participant: CMS (Chinese Taipei)

Flow rate l (m^3/h)	x_i / %	U_i / %	U_{is} / %	D_i / %	En_i
2.0	**-0.24**	0.18	**0.190**	**-0.11**	0.58
4.5	**0.06**	0.18	**0.190**	**0.04**	0.24
6.6	**0.15**	0.15	**0.162**	**0.08**	0.52
9.1	**0.17**	0.15	**0.162**	**0.06**	0.40
13.1	**0.18**	0.15	**0.162**	**0.04**	0.26
16.0	**0.22**	0.15	**0.162**	**0.05**	0.35
24.1	**0.22**	0.15	**0.162**	**0.03**	0.20
32.2	**0.24**	0.15	**0.162**	**0.03**	0.17
40.0	**0.25**	0.15	**0.162**	**0.02**	0.11
49.8	**0.25**	0.15	**0.162**	**0.00**	0.00
59.9	**0.27**	0.15	**0.162**	**0.01**	0.06
-	**-**	-	**-**	**-**	-
-	**-**	-	**-**	**-**	-
-	**-**	-	**-**	**-**	-
-	**-**	-	**-**	**-**	-



The solid blue curve represents the participant's results, x_i, with expanded uncertainty bars (k = 2), U_{iS}

The solid red curve represents the key comparison reference value

The two red dash curves correspond to (x_R + U_R) and (x_R - U_R), where U_R is the expanded uncertainty (k = 2) of x_R

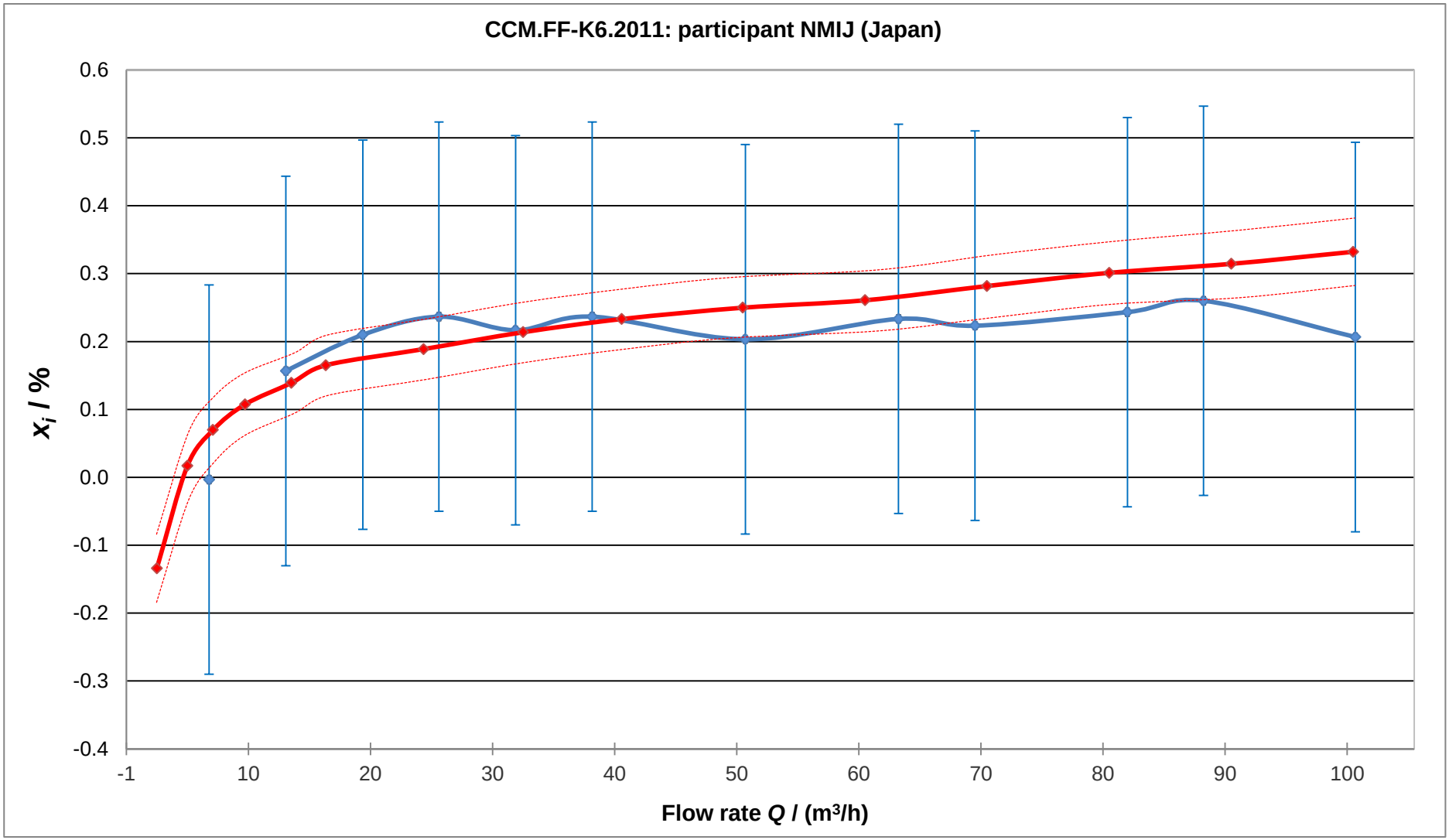
Key comparison CCM.FF-K6.2011

MEASURAND : Relative error of a gas flow meter
GAS FLOW RATE : 2 m^3/h to 100 m^3/h
TRANSFER STANDARD : A rotary gas meter (see Section 3 of the Final Report)

In the following, equivalence is demonstrated by providing the D_i and En_i values for one participating laboratory all over the range of flow rates. The curve of the key comparison reference value is added on the graphs showing the values x_i and U_{is} obtained by each participant.

Participant: NMIJ (Japan)

Flow rate l (m^3/h)	x_i / %	U_i / %	U_{is} / %	D_i / %	En_i
-	-	-	-	-	-
-	-	-	-	-	-
6.28	0.00	0.28	0.287	-0.07	0.26
-	-	-	-	-	-
12.57	0.16	0.28	0.287	0.02	0.06
18.87	0.21	0.28	0.287	0.04	0.16
25.11	0.24	0.28	0.287	0.05	0.17
31.38	0.22	0.28	0.287	0.00	0.01
37.66	0.24	0.28	0.287	0.00	0.01
50.20	0.20	0.28	0.287	-0.05	0.16
62.75	0.23	0.28	0.287	-0.03	0.10
69.02	0.22	0.28	0.287	-0.06	0.21
81.50	0.24	0.28	0.287	-0.06	0.20
87.74	0.26	0.28	0.287	-0.05	0.19
100.17	0.21	0.28	0.287	-0.13	0.44



The solid blue curve represents the participant's results, x_i, with expanded uncertainty bars (k = 2), U_{is}

The solid red curve represents the key comparison reference value

The two red dash curves correspond to (x_R + U_R) and (x_R - U_R), where U_R is the expanded uncertainty (k = 2) of x_R

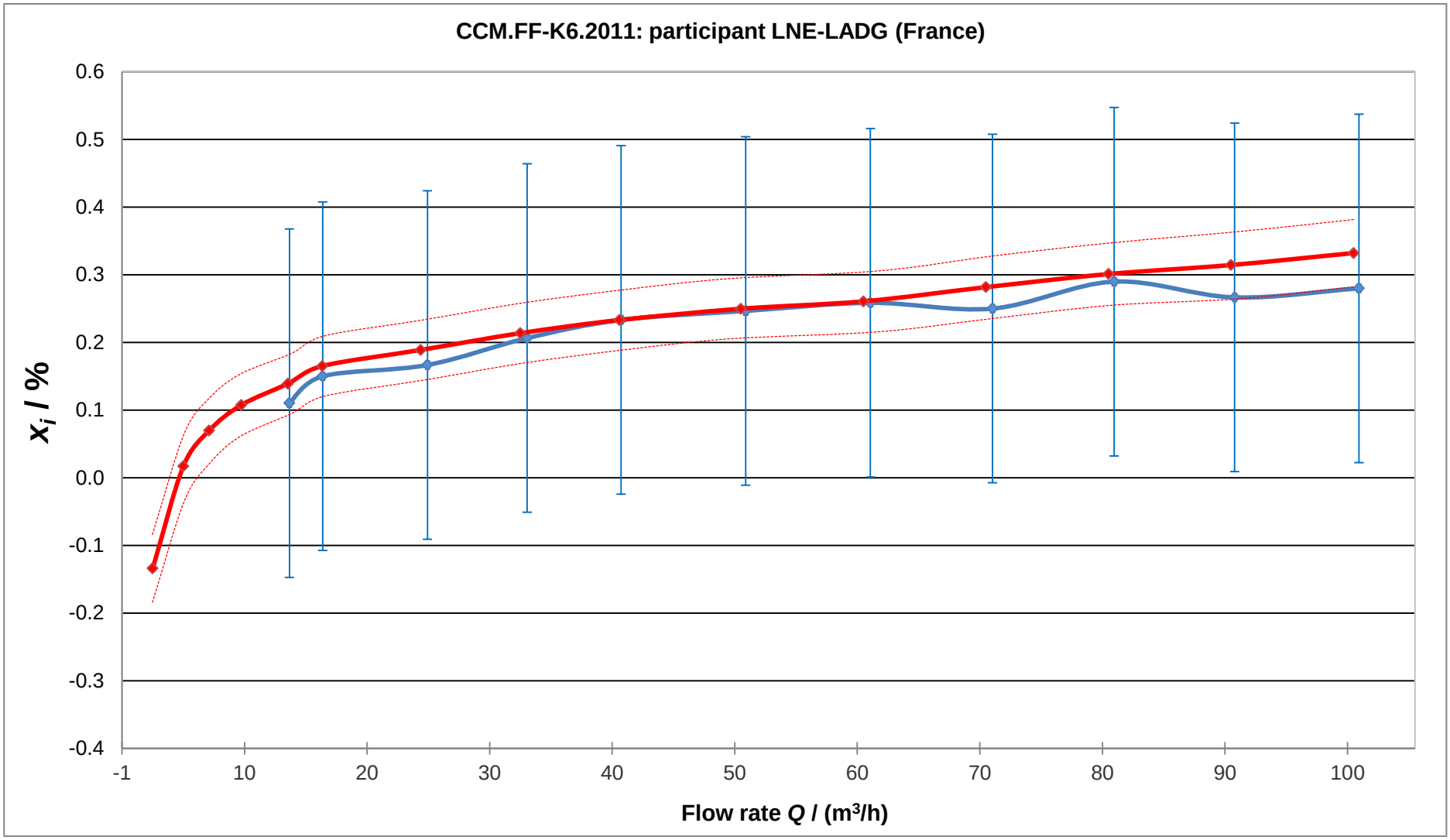
Key comparison CCM.FF-K6.2011

MEASURAND : Relative error of a gas flow meter
GAS FLOW RATE : 2 m^3/h to 100 m^3/h
TRANSFER STANDARD : A rotary gas meter (see Section 3 of the Final Report)

In the following, equivalence is demonstrated by providing the D_i and En_i values for one participating laboratory all over the range of flow rates. The curve of the key comparison reference value is added on the graphs showing the values x_i and U_{is} obtained by each participant.

Participant: LNE-LADG (France)

Flow rate l (m^3/h)	x_i / %	U_i / %	U_{is} / %	D_i / %	En_i
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
13.16	**0.11**	0.25	**0.258**	**-0.03**	0.11
15.87	**0.15**	0.25	**0.258**	**-0.02**	0.06
24.42	**0.17**	0.25	**0.258**	**-0.02**	0.09
32.56	**0.21**	0.25	**0.258**	**-0.01**	0.03
40.22	**0.23**	0.25	**0.258**	**0.00**	0.00
50.39	**0.25**	0.25	**0.258**	**0.00**	0.01
60.57	**0.26**	0.25	**0.258**	**0.00**	0.01
70.53	**0.25**	0.25	**0.258**	**-0.03**	0.13
80.46	**0.29**	0.25	**0.258**	**-0.01**	0.04
90.30	**0.27**	0.25	**0.258**	**-0.05**	0.19
100.44	**0.28**	0.25	**0.258**	**-0.05**	0.21



The solid blue curve represents the participant's results, x_i, with expanded uncertainty bars (k = 2), U_{iS}

The solid red curve represents the key comparison reference value

The two red dash curves correspond to (x_R + U_R) and (x_R - U_R), where U_R is the expanded uncertainty (k = 2) of x_R