Table S1. Results of NO$_2$ and NO global models performance, for Case A (10 min measurements).

| Training set | Testing set | NO$_2$ | | | | | | | | | NO | | | | | | | | |
| Primary SU | Secondary SU | MLR | | | SVR | | | RF | | | MLR | | | SVR | | | RF | | |
		MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)
SU009_HAE	SU010_HAE	4.8	0.70	6.0	3.5	0.80	4.8	2.9	0.87	4.0	8.1	0.69	9.7	3.3	0.92	4.9	3.2	0.92	4.9
	SU011_HAE	16.5	-2.62	21.5	2.8	0.87	4.1	2.3	0.92	3.3	9.0	0.63	11.1	2.3	0.96	3.5	1.7	0.98	2.7
	SU012_HAE	5.1	0.58	7.4	2.3	0.93	3.1	2.1	0.93	3.0	14.7	0.08	17.7	2.5	0.96	3.5	2.1	0.97	3.2
SU010_HAE	SU009_HAE	4.5	0.65	6.7	3.5	0.80	5.1	3.7	0.80	5.1	7.3	0.70	10.0	3.4	0.92	5.4	3.2	0.95	4.3
	SU011_HAE	9.4	-0.29	12.8	2.9	0.88	3.9	2.9	0.87	4.0	5.3	0.85	7.1	3.2	0.93	5.0	2.9	0.95	4.0
	SU012_HAE	4.2	0.70	6.2	2.8	0.88	3.8	3.0	0.86	4.2	9.8	0.57	12.1	2.9	0.94	4.5	2.4	0.96	3.6
SU011_HAE	SU009_HAE	8.1	0.23	9.9	2.9	0.87	4.0	2.6	0.89	3.8	6.4	0.75	9.3	2.0	0.97	3.0	1.8	0.98	2.9
	SU010_HAE	8.7	0.04	10.6	4.0	0.60	6.8	3.3	0.81	4.8	5.8	0.82	7.4	3.3	0.92	4.8	3.7	0.90	5.5
	SU012_HAE	7.5	0.34	9.2	2.8	0.86	4.2	2.2	0.92	3.3	6.8	0.80	8.2	2.1	0.97	3.1	2.2	0.96	3.5
SU012_HAE	SU009_HAE	4.8	0.67	6.5	3.5	0.84	4.5	2.4	0.91	3.4	11.0	0.36	14.7	4.7	0.90	5.9	2.1	0.97	3.2
	SU010_HAE	4.6	0.72	5.8	3.6	0.74	5.6	2.9	0.87	4.0	6.7	0.73	9.1	3.8	0.91	5.3	2.7	0.95	3.9
	SU011_HAE	7.6	0.13	10.6	4.2	0.80	5.1	2.0	0.94	2.7	6.2	0.81	8.0	5.5	0.85	7.1	1.9	0.98	2.8
SU009_ZUE	SU010_ZUE	3.4	0.77	4.2	3.0	0.81	3.8	3.1	0.79	4.0	5.7	0.77	6.7	2.0	0.95	3.1	1.7	0.96	2.7
SU010_ZUE	SU009_ZUE	4.1	0.65	5.1	3.7	0.72	4.6	3.4	0.74	4.4	4.2	0.80	6.3	1.8	0.96	3.0	1.1	0.98	1.9
SU011_LAU	SU012_LAU	7.4	0.21	9.1	3.2	0.84	4.1	2.0	0.92	2.8	6.1	0.73	7.4	3.0	0.91	4.2	1.7	0.96	2.9
SU012_LAU	SU011_LAU	4.0	0.71	5.5	7.7	0.19	9.3	2.2	0.92	2.9	4.6	0.78	6.7	5.3	0.82	6.1	2.1	0.96	3.0

Table S2. Results of NO$_2$ and NO global models performance, for Case B (10 min measurements).

| Training set | Testing set | NO$_2$ | | | | | | | | | NO | | | | | | | | |
| Primary SU | Secondary SU | MLR | | | SVR | | | RF | | | MLR | | | SVR | | | RF | | |
		MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)
SU009_HAE	SU010_ZUE	6.1	0.20	7.8	5.4	0.30	7.3	5.1	0.33	7.1	7.9	0.49	10.0	4.9	0.64	8.4	4.9	0.62	8.6
	SU011_LAU	14.8	-2.77	20.0	7.1	0.22	9.1	5.5	0.56	6.8	8.2	0.43	10.8	4.9	0.75	7.1	4.0	0.83	5.9
	SU012_LAU	6.6	0.13	9.6	7.1	0.28	8.7	5.7	0.54	7.0	17.3	-1.33	21.8	4.8	0.76	7.0	3.9	0.83	6.0
SU010_HAE	SU009_ZUE	4.6	0.53	6.0	4.7	0.50	6.2	4.2	0.61	5.4	10.4	-0.25	15.8	4.1	0.74	7.2	4.1	0.75	7.0
	SU011_LAU	8.2	-0.32	11.8	5.9	0.52	7.1	4.3	0.73	5.4	6.5	0.59	9.2	3.7	0.82	6.1	3.5	0.87	5.2
	SU012_LAU	4.9	0.58	6.7	6.4	0.45	7.6	4.8	0.68	5.8	13.5	-0.51	17.6	4.5	0.76	7.0	3.7	0.86	5.4
SU011_HAE	SU009_ZUE	9.7	-0.76	11.5	3.7	0.67	5.0	4.0	0.62	5.4	8.8	0.07	13.6	3.4	0.80	6.3	4.0	0.73	7.3
	SU010_ZUE	10.3	-1.07	12.5	3.5	0.72	4.6	4.1	0.61	5.4	6.5	0.49	10.1	3.7	0.79	6.4	4.8	0.65	8.3
	SU012_LAU	8.4	-0.05	10.5	5.9	0.52	7.1	4.5	0.70	5.6	10.0	0.22	12.6	3.9	0.85	5.5	3.5	0.85	5.4
SU012_HAE	SU009_ZUE	5.5	0.35	7.0	5.3	0.42	6.6	4.5	0.50	6.2	13.3	-0.71	18.4	4.9	0.74	7.2	3.6	0.76	6.9
	SU010_ZUE	5.8	0.32	7.2	4.0	0.57	5.7	4.7	0.34	7.1	8.5	0.22	12.5	4.5	0.71	7.6	4.1	0.75	7.1
	SU011_LAU	7.5	0.20	10.7	4.3	0.72	5.4	4.2	0.74	5.2	15.7	-0.82	19.3	4.3	0.72	5.4	4.6	0.82	6.0
SU009_ZUE	SU010_HAE	4.7	0.66	6.4	6.5	0.39	8.5	4.9	0.58	7.1	9.1	0.44	13.1	6.5	0.39	8.5	4.8	0.78	8.1
	SU011_HAE	14.8	-1.85	19.1	3.2	0.85	4.3	3.7	0.80	5.0	11.4	0.28	15.6	3.2	0.85	4.3	4.4	0.82	7.8
	SU012_HAE	6.3	0.40	8.8	5.0	0.67	6.5	3.9	0.76	5.5	15.2	-0.12	19.4	5.0	0.67	6.5	4.3	0.83	7.7
	SU011_LAU	13.6	-2.13	18.2	4.7	0.69	5.7	4.1	0.75	5.1	8.8	0.42	10.9	4.7	0.69	5.7	4.5	0.82	6.1
	SU012_LAU	7.5	-0.09	10.7	4.3	0.72	5.4	4.2	0.74	5.2	15.7	-0.82	19.3	4.3	0.72	5.4	4.6	0.82	6.0
SU010_ZUE	SU009_HAE	5.5	0.50	8.0	5.2	0.59	7.3	5.2	0.59	7.3	6.1	0.73	9.6	5.2	0.59	7.3	4.7	0.82	7.7
	SU011_HAE	11.5	-0.82	15.2	3.5	0.80	5.1	4.3	0.73	5.4	5.8	0.71	9.3	3.5	0.80	5.1	4.4	0.83	7.5
	SU012_HAE	5.8	0.46	8.3	5.0	0.60	7.1	4.6	0.67	6.5	8.9	0.55	12.3	5.0	0.60	7.1	4.1	0.85	7.0
	SU011_LAU	10.6	-0.98	14.5	4.5	0.72	5.5	4.3	0.73	5.4	5.8	0.73	7.5	4.5	0.72	5.5	4.5	0.82	6.1
	SU012_LAU	6.6	0.20	9.2	4.6	0.72	5.4	4.2	0.75	5.2	10.1	0.24	12.5	4.6	0.72	5.4	4.3	0.84	5.7
SU011_LAU	SU009_HAE	9.1	0.02	11.2	5.9	0.61	7.1	5.8	0.61	7	6.4	0.77	8.7	5.9	0.61	7.1	4.5	0.88	6.3
	SU010_HAE	9.6	-0.17	11.7	7.6	0.3	9.1	6.2	0.51	7.6	6.2	0.76	8.5	7.6	0.3	9.1	5.1	0.83	7.2
	SU012_HAE	8.5	0.10	10.7	7.3	0.4	8.8	5.7	0.62	7	6.3	0.78	8.6	7.3	0.4	8.8	4.4	0.89	6.2
	SU009_ZUE	5.9	0.32	7.1	7.4	-0.05	8.9	5.2	0.50	6.2	8.5	0.44	10.5	7.4	-0.05	8.9	4.4	0.85	5.5
	SU010_ZUE	5.7	0.60	6.9	4.3	0.66	5.1	5.6	0.44	6.5	6.6	0.67	8.1	4.3	0.66	5.1	4.9	0.83	5.8
SU012_LAU	SU009_HAE	6.8	0.41	8.7	7.2	0.40	8.7	5.8	0.62	7.0	8.4	0.63	11.2	7.2	0.40	8.7	4.8	0.86	6.9
	SU010_HAE	5.7	0.60	6.9	7.0	0.34	8.9	6.1	0.55	7.3	6.7	0.74	8.8	7.0	0.34	8.9	5.1	0.85	6.9
	SU011_HAE	6.0	0.56	7.5	7.8	0.31	9.4	4.6	0.76	5.6	7.0	0.76	9.0	7.8	0.31	9.4	4.3	0.88	6.3
	SU009_ZUE	5.9	0.32	7.1	7.4	-0.05	8.9	5.2	0.50	6.2	8.5	0.44	10.5	7.4	-0.05	8.9	4.4	0.85	5.5
	SU010_ZUE	5.7	0.60	6.9	4.3	0.66	5.1	5.6	0.44	6.5	6.6	0.67	8.1	4.3	0.66	5.1	4.9	0.83	5.8

Table S3. Results of NO₂ and NO global models performance, for Case A (1 h measurements).

Training set	Testing set	NO₂									NO								
		MLR			SVR			RF			MLR			SVR			RF		
Primary SU	Secondary SU	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)
SU009_HAE	SU010_HAE	4.8	0.69	6.0	3.3	0.83	4.5	3.0	0.86	4.0	8.0	0.68	9.7	3.1	0.93	4.5	3.3	0.91	5.1
	SU011_HAE	16.6	-2.75	21.7	2.7	0.88	3.8	2.3	0.91	3.3	9.0	0.62	11.1	2.4	0.97	3.3	1.8	0.98	2.9
	SU012_HAE	5.1	0.57	7.3	2.2	0.93	3.0	2.2	0.93	3.1	14.7	0.05	17.7	2.4	0.97	3.4	2.2	0.96	3.5
SU010_HAE	SU009_HAE	4.5	0.65	6.6	3.3	0.81	4.9	3.8	0.78	5.2	7.3	0.70	9.9	3.1	0.94	4.6	3.3	0.94	4.5
	SU011_HAE	9.6	-0.35	13.0	2.7	0.90	3.6	3.0	0.86	4.2	5.3	0.85	7.1	2.9	0.95	4.2	2.9	0.95	4.0
	SU012_HAE	4.1	0.70	6.1	2.8	0.87	4.0	3.1	0.85	4.3	9.8	0.56	12.1	2.7	0.95	4.0	2.5	0.96	3.6
SU011_HAE	SU009_HAE	8.1	0.21	10.0	2.9	0.87	4.1	2.6	0.88	3.8	6.4	0.74	9.2	2.1	0.97	3.0	1.9	0.97	3.0
	SU010_HAE	8.8	0.00	10.7	3.6	0.64	6.5	3.3	0.79	4.9	5.8	0.82	7.3	3.0	0.93	4.5	3.9	0.88	6.0
	SU012_HAE	7.5	0.32	9.3	2.7	0.86	4.2	2.2	0.91	3.3	6.8	0.80	8.2	2.2	0.97	3.1	2.4	0.95	3.9
SU012_HAE	SU009_HAE	4.8	0.67	6.5	3.2	0.86	4.1	2.4	0.90	3.5	11.0	0.34	14.7	3.6	0.94	4.6	2.3	0.97	3.4
	SU010_HAE	4.6	0.72	5.7	3.5	0.72	5.7	3.0	0.86	4.1	6.7	0.72	9.1	3.2	0.93	4.6	2.3	0.97	3.4
	SU011_HAE	7.6	0.11	10.6	3.8	0.83	4.6	2.1	0.94	2.8	6.2	0.81	8.0	4.4	0.91	5.4	2.1	0.97	3.1
SU009_ZUE	SU010_ZUE	3.3	0.77	4.1	2.8	0.84	3.5	3.1	0.79	4.0	5.7	0.77	6.7	1.8	0.96	2.7	1.9	0.95	3.2
SU010_ZUE	SU009_ZUE	4.1	0.65	5.1	3.7	0.73	4.5	3.5	0.74	4.4	4.2	0.80	6.2	1.6	0.96	2.7	1.2	0.98	2.1
SU011_LAU	SU012_LAU	7.3	0.22	9.1	3.0	0.86	3.8	2.1	0.92	2.9	6.1	0.73	7.3	2.9	0.92	4.1	1.7	0.96	2.9
SU012_LAU	SU011_LAU	3.9	0.71	5.5	5.7	0.57	6.7	2.3	0.91	3.0	4.6	0.78	6.7	4.7	0.82	6.0	2.2	0.95	3.2

Table S4. Results of NO₂ and NO global models performance, for Case B (1 h measurements).

Training set	Testing set	NO₂									NO								
		MLR			SVR			RF			MLR			SVR			RF		
Primary SU	Secondary SU	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)
SU009_HAE	SU010_ZUE	6.1	0.19	7.8	5.0	0.37	6.8	5.0	0.35	7.0	7.9	0.49	9.9	4.8	0.69	7.8	4.9	0.63	8.5
	SU011_LAU	14.9	-2.84	20.1	6.7	0.31	8.5	5.3	0.59	6.6	8.1	0.42	10.8	4.8	0.79	6.5	4.0	0.83	5.8
	SU012_LAU	6.6	0.11	9.7	6.8	0.34	8.3	5.5	0.57	6.7	17.3	-1.39	21.8	4.8	0.78	6.6	4.0	0.82	5.9
SU010_HAE	SU009_ZUE	4.5	0.53	5.9	4.3	0.61	5.4	4.1	0.63	5.3	10.4	-0.25	15.6	3.4	0.83	5.8	4.1	0.77	6.6
	SU011_LAU	8.3	-0.36	11.9	5.5	0.58	6.6	4.2	0.73	5.3	6.5	0.59	9.1	3.7	0.86	5.3	3.5	0.87	5.1
	SU012_LAU	4.9	0.57	6.7	5.8	0.56	6.8	4.3	0.69	5.4	13.5	-0.55	17.6	4.4	0.81	6.2	3.6	0.87	5.2
SU011_HAE	SU009_ZUE	9.8	-0.82	11.6	3.5	0.73	4.5	3.8	0.65	5.1	8.8	0.07	13.5	3.5	0.80	6.3	3.9	0.73	7.3
	SU010_ZUE	10.4	-1.14	12.6	3.1	0.78	4.1	3.8	0.65	5.1	6.5	0.49	10.0	3.7	0.80	6.3	4.8	0.62	8.7
	SU012_LAU	8.4	-0.07	10.6	5.6	0.57	6.7	4.5	0.70	5.6	10.0	0.21	12.6	3.8	0.86	5.4	3.7	0.84	5.6
SU012_HAE	SU009_ZUE	5.5	0.35	7.0	5.1	0.43	6.5	4.3	0.53	5.9	13.2	0.02	18.3	4.3	0.78	6.6	3.5	0.75	6.9
	SU010_ZUE	5.8	0.32	7.1	3.8	0.60	5.4	4.4	0.43	6.5	8.5	0.22	12.4	4.1	0.77	6.7	4.0	0.74	7.1
	SU011_LAU	6.9	0.04	10.0	7.5	0.24	8.9	4.9	0.65	6.0	6.1	0.53	9.7	5.9	0.74	7.2	3.7	0.86	5.3
SU009_ZUE	SU011_LAU	13.6	-2.15	18.2	4.6	0.70	5.6	4.1	0.75	5.1	8.8	0.41	10.9	4.7	0.83	5.8	4.5	0.81	6.1
	SU012_LAU	7.5	-0.09	10.7	4.3	0.73	5.3	4.2	0.74	5.2	15.7	-0.86	19.3	4.4	0.85	5.5	4.7	0.81	6.2
SU010_ZUE	SU011_LAU	10.5	-0.99	14.4	4.4	0.73	5.3	4.5	0.70	5.6	5.8	0.72	7.4	5.1	0.80	6.4	4.6	0.81	6.2
	SU012_LAU	6.5	0.20	9.2	4.5	0.72	5.4	4.5	0.71	5.5	10.1	0.23	12.4	4.6	0.83	5.8	4.3	0.84	5.7
SU011_LAU	SU009_ZUE	6.5	0.20	9.2	5.1	0.51	6.1	5.3	0.46	6.4	6.2	0.69	7.7	4.9	0.83	5.8	4.8	0.83	5.7
	SU010_ZUE	10.4	-1.34	13.2	5.5	0.48	6.2	5.3	0.49	6.2	5.5	0.75	7.0	5.3	0.78	6.6	4.5	0.83	5.8
SU012_LAU	SU009_ZUE	5.8	0.32	7.1	6.3	0.25	7.5	5.1	0.50	6.1	8.4	0.43	10.5	4.8	0.73	7.3	4.2	0.85	5.5
	SU010_ZUE	4.8	0.53	5.9	4.4	0.66	5.0	5.5	0.44	6.5	6.5	0.67	8.0	5.0	0.82	5.9	4.7	0.83	5.7

Table S5. Results of NO_2 and NO global models performance, for Case A after including O_3 (1 h measurements).

Training set	Testing set	NO₂ MLR			NO₂ SVR			NO₂ RF			NO MLR			NO SVR			NO RF		
Primary SU	Secondary SU	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)
SU009_HAE	SU010_HAE	4.5	0.73	5.6	2.8	0.86	4.0	2.9	0.87	3.9	7.7	0.71	9.3	2.5	0.95	3.7	2.8	0.94	4.1
	SU011_HAE	16.1	-2.51	21.0	2.5	0.91	3.4	2.0	0.94	2.8	8.8	0.64	10.8	1.7	0.98	2.7	1.6	0.98	2.5
	SU012_HAE	4.7	0.61	7.0	2.2	0.93	3.0	2.0	0.94	2.8	14.4	0.09	17.3	1.9	0.98	2.8	1.9	0.97	2.9
SU010_HAE	SU009_HAE	4.1	0.71	6.1	3.5	0.80	5.0	3.7	0.79	5.1	7.1	0.72	9.6	2.4	0.96	3.5	2.8	0.96	3.7
	SU011_HAE	9.0	-0.19	12.2	2.7	0.89	3.7	3.0	0.86	4.2	5.4	0.85	7.1	2.4	0.96	3.6	2.6	0.96	3.6
	SU012_HAE	3.7	0.74	5.7	2.8	0.87	4.0	3.0	0.86	4.2	9.9	0.54	12.2	1.9	0.97	3.1	2.1	0.97	3.1
SU011_HAE	SU009_HAE	8.2	0.21	10.0	2.6	0.89	3.7	2.4	0.90	3.5	6.3	0.75	9.0	1.8	0.98	2.7	1.7	0.98	2.6
	SU010_HAE	8.7	0.01	10.7	3.7	0.67	6.1	3.4	0.81	4.7	5.7	0.82	7.2	3.1	0.94	4.4	3.4	0.92	5.0
	SU012_HAE	7.6	0.31	9.3	2.3	0.89	3.7	2.0	0.93	3.0	6.7	0.80	8.1	2.4	0.97	3.3	2.0	0.97	3.2
SU012_HAE	SU009_HAE	4.5	0.72	5.9	2.3	0.91	3.4	2.1	0.92	3.2	10.9	0.37	14.4	1.9	0.97	3.1	1.9	0.97	2.9
	SU010_HAE	4.4	0.74	5.5	3.4	0.75	5.4	3.0	0.86	4.0	6.8	0.72	9.1	2.7	0.95	3.7	2.3	0.96	3.4
	SU011_HAE	7.5	0.15	10.3	2.4	0.93	3.0	1.8	0.95	2.5	6.2	0.81	7.9	2.4	0.97	3.1	1.7	0.98	2.6
SU009_ZUE	SU010_ZUE	2.5	0.87	3.1	2.1	0.91	2.6	1.7	0.93	2.3	5.6	0.78	6.6	1.2	0.98	1.9	1.4	0.97	2.4
SU010_ZUE	SU009_ZUE	2.4	0.86	3.2	2.5	0.87	3.1	2.4	0.88	3.0	6.1	0.72	7.5	1.0	0.99	1.7	0.9	0.99	1.6
SU011_LAU	SU012_LAU	6.3	0.39	8.0	1.8	0.94	2.5	1.4	0.96	2.0	6.3	0.78	8.6	2.7	0.92	3.9	1.6	0.96	2.6
SU012_LAU	SU011_LAU	2.8	0.81	4.4	1.6	0.94	2.4	2.2	0.92	2.9	4.7	0.76	6.8	3.4	0.89	4.5	2.0	0.96	2.9

Table S6. Results of NO_2 and NO global models performance, for Case B after including O_3 (1 h measurements).

Training set	Testing set	NO₂ MLR			NO₂ SVR			NO₂ RF			NO MLR			NO SVR			NO RF		
Primary SU	Secondary SU	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)	MAE (ppb)	R^2	RMSE (ppb)
SU009_HAE	SU010_ZUE	5.8	0.32	7.2	4.6	0.52	6.0	4.4	0.52	6.0	7.8	0.52	9.8	4.0	0.80	6.4	4.2	0.75	7.0
	SU011_LAU	14.8	-2.80	19.9	5.7	0.53	7.0	4.7	0.68	5.8	7.6	0.46	10.2	3.8	0.86	5.2	3.6	0.85	5.4
	SU012_LAU	7.0	-0.07	10.6	6.0	0.53	7.0	4.8	0.67	5.9	16.5	-1.30	20.9	3.9	0.83	5.6	3.6	0.85	5.4
SU010_HAE	SU009_ZUE	3.8	0.67	4.9	4.4	0.59	5.5	4.1	0.64	5.2	10.2	-0.18	15.3	4.0	0.79	6.4	3.6	0.86	5.2
	SU011_LAU	7.7	-0.25	11.4	5.6	0.57	6.7	4.3	0.73	5.3	6.3	0.61	8.6	4.0	0.83	5.8	3.5	0.86	5.2
	SU012_LAU	4.7	0.57	6.7	5.6	0.58	6.7	4.6	0.69	5.7	13.2	-0.57	17.3	4.3	0.80	6.1	3.7	0.86	5.2
SU011_HAE	SU009_ZUE	9.8	-0.80	11.6	2.8	0.80	3.9	3.3	0.70	4.7	8.7	0.12	13.2	3.8	0.82	5.9	3.5	0.80	6.2
	SU010_ZUE	10.6	-1.15	12.7	2.8	0.82	3.7	3.5	0.69	4.8	6.6	0.50	9.9	4.1	0.81	6.1	4.3	0.73	7.3
	SU012_LAU	8.1	0.01	10.2	4.5	0.73	5.3	4.0	0.76	5.0	9.7	0.21	12.3	3.4	0.86	5.2	3.3	0.87	5.1
SU012_HAE	SU009_ZUE	4.9	0.51	6.1	3.9	0.64	5.2	3.7	0.63	5.3	12.9	-0.61	17.9	3.5	0.83	5.8	3.0	0.84	5.6
	SU010_ZUE	5.6	0.39	6.8	3.9	0.60	5.5	4.1	0.53	6.0	8.6	0.24	12.3	3.7	0.83	5.8	3.4	0.84	5.7
	SU011_LAU	6.6	0.07	9.8	6.0	0.53	7.0	4.3	0.73	5.3	6.4	0.52	9.6	4.0	0.85	5.3	3.4	0.87	5.0
SU009_ZUE	SU011_LAU	14.6	-2.65	19.5	4.2	0.75	5.1	4.5	0.70	5.6	5.6	0.78	6.6	5.1	0.78	6.4	5.0	0.76	6.8
	SU012_LAU	9.0	-0.64	13.1	3.8	0.79	4.7	4.6	0.71	5.5	15.8	-1.00	19.5	4.6	0.81	6.0	4.9	0.77	6.6
SU010_ZUE	SU011_LAU	11.4	-1.33	15.6	4.3	0.75	5.1	4.6	0.67	5.9	5.6	0.73	7.2	5.2	0.77	6.7	5.0	0.75	6.9
	SU012_LAU	7.4	-0.16	11.0	4.3	0.75	5.1	4.6	0.68	5.7	10.1	0.18	12.5	4.8	0.80	6.2	4.9	0.77	6.7
SU011_LAU	SU009_ZUE	9.4	-0.74	11.4	4.2	0.70	4.7	4.6	0.63	5.3	6.0	0.72	7.5	4.5	0.87	5.1	4.3	0.87	5.2
	SU010_ZUE	9.6	-0.92	12.0	5.2	0.57	5.7	5.4	0.52	6.0	5.3	0.78	6.7	4.7	0.83	5.7	4.2	0.86	5.3
SU012_LAU	SU009_ZUE	5.2	0.48	6.2	4.0	0.73	4.5	4.6	0.62	5.3	8.2	0.47	10.3	4.3	0.82	5.9	4.0	0.87	5.0
	SU010_ZUE	4.6	0.61	5.4	4.8	0.61	5.4	5.5	0.49	6.2	6.4	0.69	7.9	4.7	0.85	5.5	4.5	0.86	5.4
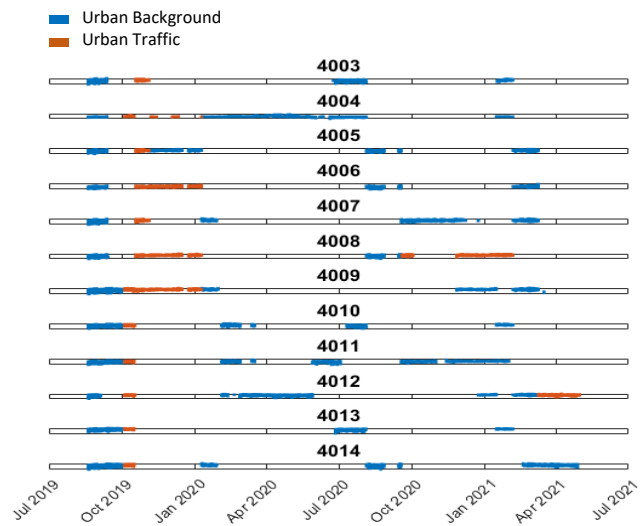
Figure S1. Summary of temporal deployment of Modena SUs at both sites.
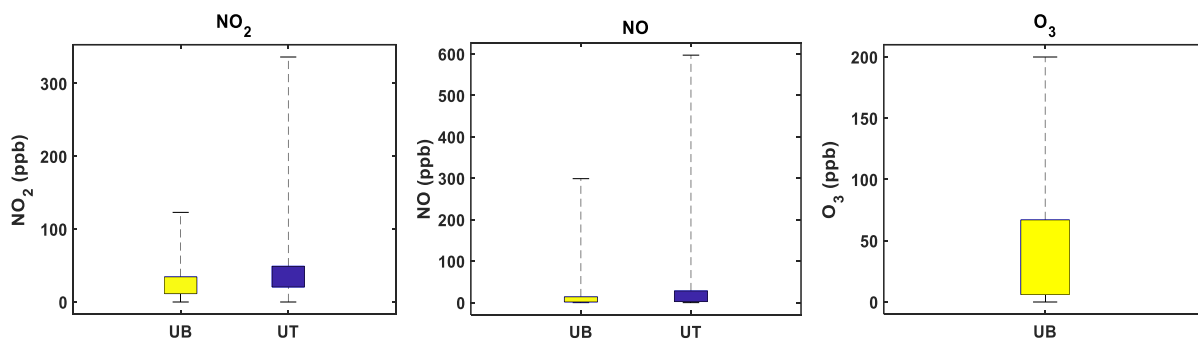
Figure S2. Box plots showing pollutants concentrations at UB and UT deployment sites of Modena dataset using 1 h averaged data. The central line indicates the median, and the bottom and top edges of the box indicate the 25th and 75th percentiles of the data, respectively. The whiskers extend to the minimum and maximum values.

Table S7. Sensor to reference correlation in urban background (UB) site, and in urban traffic (UT) site of Modena dataset.

SU	UB			UT	
	NO	NO$_2$	O$_3$	NO	NO$_2$
4003	-0.18	0.80	0.52	0.90	0.70
4004	0.11	0.06	0.38	0.79	0.07
4005	0.16	0.74	0.19	0.90	0.77
4006	-0.13	0.78	0.73	0.94	0.89
4007	0.31	0.76	0.46	0.86	0.75
4008	-0.20	0.68	0.77	0.94	0.85
4009	0.31	0.71	0.39	0.70	0.69
4010	-0.02	0.82	0.47	0.95	0.84
4011	0.14	0.71	0.28	0.94	0.83
4012	0.12	0.69	0.47	0.79	0.65
4013	-0.17	0.70	0.53	0.93	0.85
4014	0.22	0.72	0.64	0.95	0.83
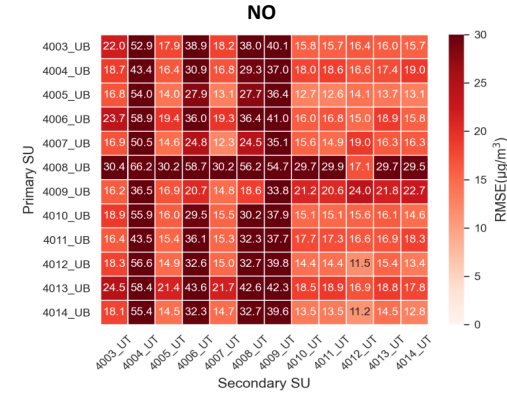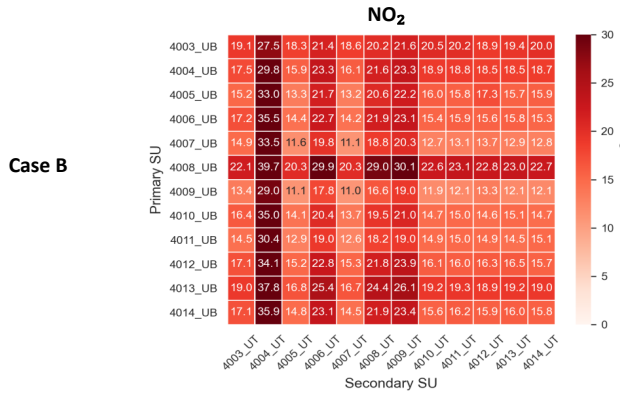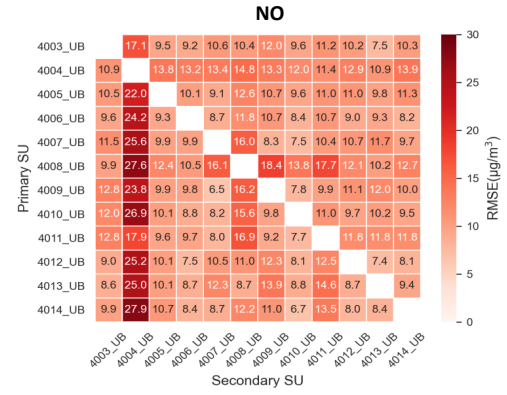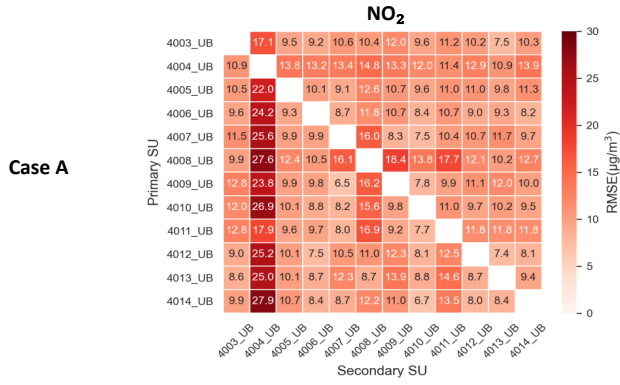
Figure S3. RMSE results of global RF models for Case A and Case B using Modena dataset at the urban background (UB) site.
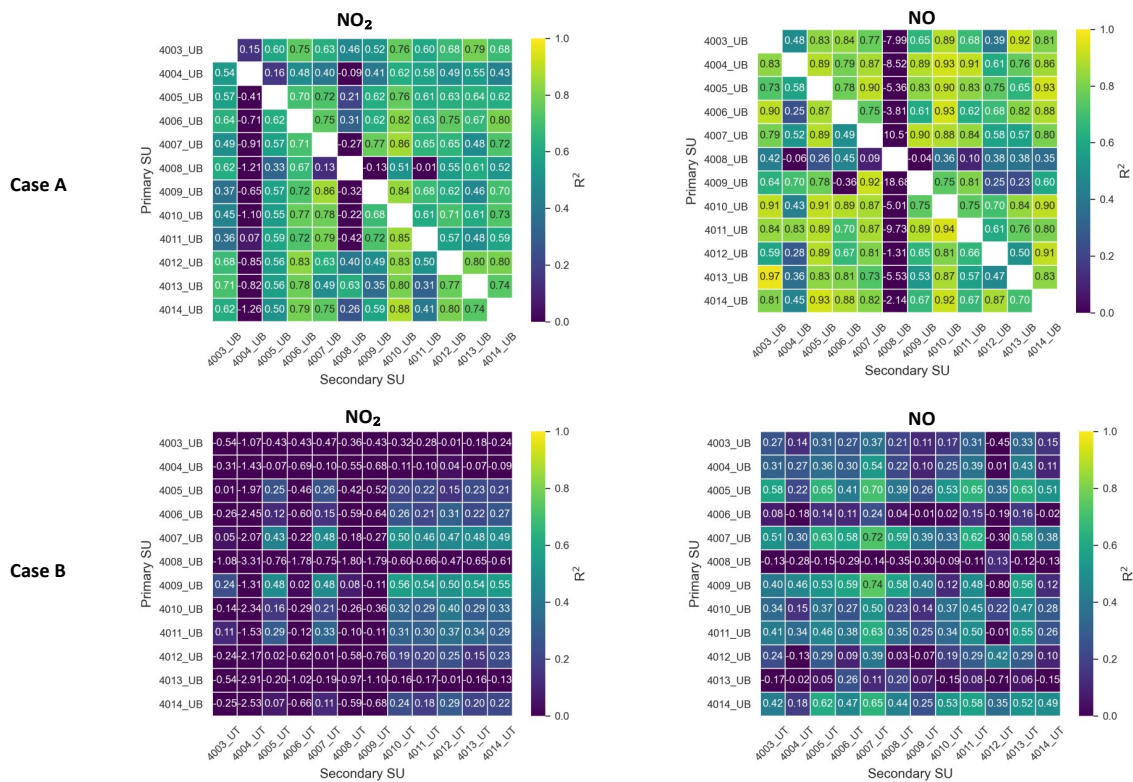
Figure S4. R^2 results of global RF models for Case A and Case B using Modena dataset at the urban background (UB) site.
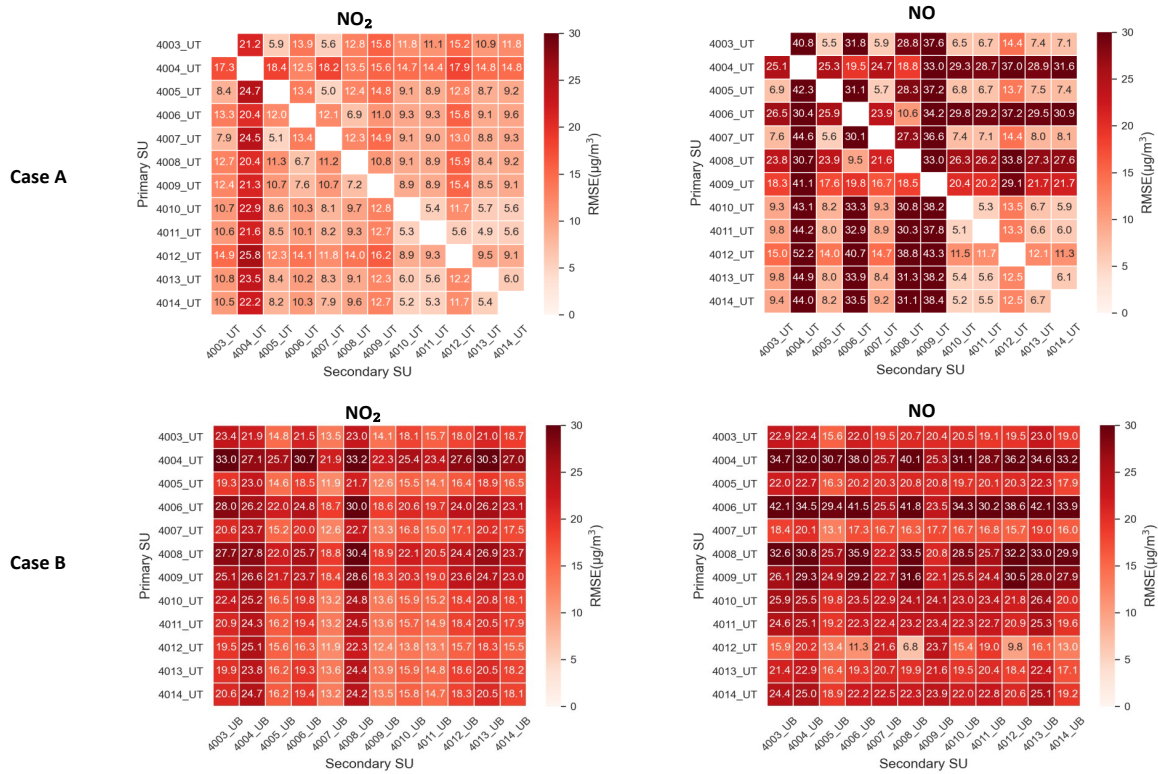
Figure S5. RMSE results of global RF models using Modena dataset at the urban background (UT) site.
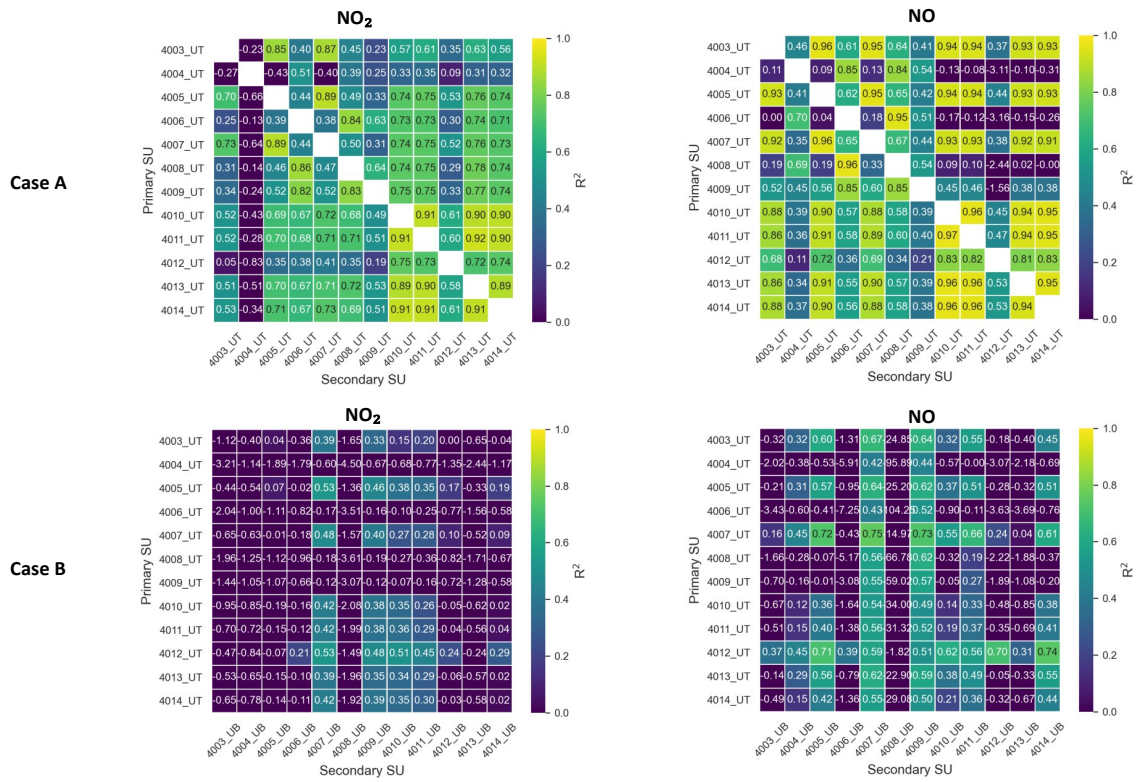
Figure S6. R^2 results of global RF models using Modena dataset at the urban background (UT) site.