

2. Overview of measurement networks of the Czech Republic

2.1 Statistical survey

Tab. mer1 Air pollution monitoring localities, based on the owner and the regions, Czech Republic, 2004

Region	CHMI	ZÚ	Z	E+P	KMon	Total
Prague	16	8	–	–	–	24
South Bohemian	8	2	3	–	–	13
South Moravian	9	4	1	–	–	14
Karlovy Vary	4	4	6	3	–	17
Hradec Králové	14	1	1	–	–	16
Liberec	9	3	1	–	–	13
Moravian-Silesian	22	4	2	2	1	31
Olomouc	6	1	3	–	1	11
Pardubice	6	4	2	2	1	15
Plzeň	6	4	6	–	6	22
Central Bohemian	10	6	3	–	–	19
Ústí nad Labem	23	17	1	9	–	50
Vysočina	7	3	1	–	–	11
Zlín	4	2	5	–	–	11
Total	144	63	35	16	9	267

Explanatory notes:

Z agriculture [Ekotoxa (29), VÚLHM (6)]

E+P energetics + průmysl/industry [ČEZ (15), FP (1)]

KMon municipal monitoring [MÚ Třinec (1), Město Plzeň (6), MÚ Pardubice (1), OÚ Šumperk (1)]

Tab. mer2 Air pollution monitoring localities measuring basic pollutants, AMS, based on the regions and the owner, Czech Republic, 2004

Region	SO ₂		NO ₂ , NO _x		PM ₁₀		O ₃		CO		BTX	
	CHMI	Others	CHMI	Others	CHMI	ZÚ, Město Plzeň, ČEZ, MÚ Třinec	CHMI	ZÚ, Město Plzeň, MÚ Pardubice	CHMI	ZÚ, Město Plzeň	CHMI	Město Plzeň, MÚ Pardubice
Prague	15	–	16	–	15	–	8	–	6	7	4	–
South Bohemian	4	2	4	2	4	2	5	1	2	2	2	–
South Moravian	4	1	4	1	4	1	4	1	1	–	2	–
Karlovy Vary	4	4	4	4	4	1	2	–	2	1	–	–
Hradec Králové	5	1	5	1	5	1	5	1	1	1	–	–
Liberec	5	–	5	–	5	–	2	–	1	–	1	–
Moravian-Silesian	16	2	16	2	15	2	7	–	3	–	3	–
Olomouc	4	2	4	2	4	1	3	1	1	–	1	–
Pardubice	2	5	2	5	2	3	2	1	–	2	–	1
Plzeň	2	8	2	8	2	8	2	5	1	5	–	1
Central Bohemian	6	1	6	1	5	1	3	–	1	1	1	–
Ústí nad Labem	16	10	17	10	16	–	11	1	6	–	4	–
Vysočina	3	2	3	2	3	2	3	1	2	1	1	–
Zlín	2	–	2	–	2	–	2	–	1	–	1	–
Total	88	38	90	38	86	22	59	12	28	20	20	2
Total	126		128		108		71		48		22	

Explanatory notes:

Others: ZÚ, ČEZ, MÚ Třinec, Město Plzeň, MÚ Pardubice

BTX Includes measurement of aromatic hydrocarbons:

benzene, toluene, ethylbenzene, o-xylene, m-xylene, p-xylene, m,p-xylene.

Note: At some stations the measuring programme may be limited.

Tab. mer3 Air pollution monitoring localities measuring other pollutants and supplementary quantities, AMS, based on the regions and the owner, Czech Republic, 2004

Region	SPM	PM _{2,5}		NH ₃	Hg	Meteo	
	ČEZ	CHMI	Město Plzeň	CHMI	CHMI	CHMI	Others
Prague	–	4	–	–	–	5	–
South Bohemian	–	1	–	–	–	3	1
South Moravian	–	1	–	1	–	3	–
Karlovy Vary	–	1	–	–	–	4	3
Hradec Králové	–	1	–	–	–	5	–
Liberec	–	1	–	–	–	4	–
Moravian-Silesian	–	5	–	–	–	14	3
Olomouc	–	1	–	–	–	4	–
Pardubice	–	1	–	–	–	1	3
Plzeň	–	–	1	–	–	1	4
Central Bohemian	–	2	–	–	–	4	–
Ústí nad Labem	1	3	–	1	1	14	8
Vysočina	–	1	–	–	–	2	–
Zlín	–	1	–	–	–	2	–
Total	1	23	1	2	1	66	22
Total	1	24		2	1	88	

Explanatory notes:

Others: ZÚ, ČEZ, MÚ Třinec, Město Plzeň, MÚ Pardubice

Meteo Measurement of meteorological parameters:

WV –wind velocity, WD –wind direction, T10m - temperature 10 m above terrain, T2m - temperature 2 m above terrain. h - relative air humidity, p - atmospheric pressure, RAIN - precipitation amount, GLRD - global radiation

Note: At some stations the measuring programme may be limited.

Tab. mer4 Air pollution monitoring localities measuring basic pollutants, manual methods, based on the regions and the owner, Czech Republic 2004

Region	SO ₂		NO ₂ , NO _x		PM ₁₀		TK / HM		CO		O ₃	
	CHMI	Others	CHMI	ZÚ, Ekotoxa	CHMI	ZÚ	CHMI	ZÚ	CHMI	ZÚ	CHMI	ZÚ
Prague	1	3	1	7	3	5	1	8	–	1	–	–
South Bohemian	4	1	1	2	2	–	1	1	–	–	–	–
South Moravian	5	1	3	3	3	1	2	3	–	–	–	–
Karlovy Vary	–	9	–	5	1	–	1	1	–	–	–	–
Hradec Králové	8	1	3	–	4	–	2	1	–	–	–	–
Liberec	3	–	3	1	3	3	2	3	–	–	–	–
Moravian-Silesian	6	1	5	3	5	2	4	4	–	–	–	–
Olomouc	3	3	2	1	1	–	–	1	–	–	–	–
Pardubice	5	4	4	4	3	–	2	2	–	–	–	–
Plzeň	2	2	2	6	3	–	1	4	–	–	–	–
Central Bohemian	4	1	4	5	2	4	1	6	–	–	–	–
Ústí nad Labem	7	13	7	11	8	5	2	9	–	1	–	2
Vysočina	5	2	4	2	3	–	1	3	–	–	–	–
Zlín	2	4	1	7	2	1	1	2	–	–	–	–
Total	55	45	40	57	43	21	21	48	0	2	0	2
Total	100		97		64		69		2		2	

Explanatory notes:

Others: ZÚ, Ekotoxa, VÚLHM, FP

TK/HM Includes measurement of the following elements:

As, Cd, Pb, Cr, Ni, Be, Hg, Mn, Fe, Cu, Zn, Se, Sb, V.

Note: CHMI only NO₂, Ekotoxa only NO_x; TK in PM₁₀ and in PM_{2,5} are counted once

Tab. mer5 Total number of monitoring localities with special measurements, manual methods, based on the owner, Czech Republic, 2004

Region	SPM		VOC		POPs		PM _{2.5}	NH ₃	SNO ₃ ⁻ SNH ₄ ⁺ SO ₄	CS ₂	H ₂ S
	CHMI	ZÚ	CHMI	ZÚ	CHMI	ZÚ	CHMI	ZÚ	CHMI	ZÚ	ZÚ, FP (1)
Prague	–	7	3	1	2	1	2	–	1	–	–
South Bohemian	–	–	–	–	–	–	–	–	–	–	–
South Moravian	3	1	–	–	1	1	–	–	–	–	–
Karlovy Vary	–	3	–	1	1	–	–	–	–	–	–
Hradec Králové	–	–	–	1	2	1	–	–	–	–	–
Liberec	–	2	–	–	–	–	–	–	–	–	–
Moravian-Silesian	2	–	1	2	1	2	2	–	–	–	–
Olomouc	2	–	–	–	–	–	–	–	–	–	–
Pardubice	1	2	–	–	1	–	–	–	1	–	–
Plzeň	–	2	–	–	1	1	–	–	–	–	–
Central Bohemian	–	–	–	–	1	–	–	–	–	–	–
Ústí nad Labem	3	9	4	1	4	1	–	1	–	2	4
Vysočina	1	1	1	–	2	1	1	–	1	–	–
Zlín	–	2	–	–	–	–	–	–	–	–	–
Total	12	29	9	6	16	8	5	1	3	2	4
Total	41		15		24		5	1	3	2	4

Explanatory notes:

VOC Includes measurement of separately analyzed hydrocarbons:

benzene, methane, ethane, ethene, propane, propene, i-butane, n-butane, acetylene, sum of butene, i-pentane, n-pentane, sum of pentene, methyl cyclopentane, n-hexane, cyclohexane, n-heptane, isoprene, toluene, ethylbenzene, m,p-xylene, o-xylene, nonane, 2+3 methylpentane, 2+3 methylhexane, cyclopentane, 2,2-dimethylbutane, 2,3 dimethylbutane, 2+3 methylheptane, i-octane, n-octane.

POPs Includes measurement of persistent organic pollutants:

anthracene, acenaphthene, acenaphthylene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, phenanthrene, fluorene, fluoranthene, ideno(1,2,3-cd)pyrene, naphthalene, pyrene, alpha-HCH, beta-HCH, delta-HCH, gamma-HCH, hexachlorbenzene, PCP28, PCB52, PCB101, PCB118, PCB138, PCB153, PCB180, p,p'-DDD, p,p'-DDE, p,p'-DDT.

Note: SO₄ no in Prague; POPs - CHMI only BaP. At some stations the measuring programme may be limited.