

# Overview of measurement networks of the Czech Republic

## Statistical survey

**Tab. 1 Air pollution monitoring localities, based on the owner, Czech Republic, 2008**

<b>Zone / agglomeration</b>	<b>CHMI</b>	<b>ZÚ</b>	<b>ČEZ</b>	<b>P+S</b>	<b>KMon</b>	<b>Total</b>
Agglomeration Brno	5	2	–	–	5	<b>12</b>
Agglomeration Prague	15	7	–	–	–	<b>22</b>
Zone South Bohemian region	8	2	–	–	–	<b>10</b>
Zone South Moravian region	5	1	–	–	–	<b>6</b>
Zone Karlovy Vary region	5	4	1	–	–	<b>10</b>
Zone Hradec Králové region	9	1	–	–	–	<b>10</b>
Zone Liberec region	9	2	–	–	–	<b>11</b>
Agglomeration Moravian-Silesian region	21	4	2	–	1	<b>28</b>
Zone Olomouc region	5	1	–	–	2	<b>8</b>
Zone Pardubice	5	2	1	–	1	<b>9</b>
Zone Plzeň region	5	3	–	–	5	<b>13</b>
Zone Central Bohemian region	11	9	–	2	–	<b>22</b>
Zone Ústí nad Labem region	20	11	9	1	–	<b>41</b>
Zone Vysočina region	7	3	–	–	–	<b>10</b>
Zone Zlín region	4	1	–	–	2	<b>7</b>
<b>Total</b>	<b>134</b>	<b>53</b>	<b>13</b>	<b>3</b>	<b>16</b>	<b>219</b>

**Explanatory notes:**

ZÚ Health Institute [incl. ZÚ Kolín (3)]

P+S industry [ČESRAF (1), Vápenka Čertovy schody, a.s. (1)] + education [SŠZE Žatec(1)]

KMon municipal monitoring [MÚ Třinec (1), Město Plzeň (5), MÚ Pardubice (1), Město Šumperk (1), Město Olomouc (1), Město Zlín (1), Statutární město Brno(5), Město Valašské Meziříčí(1)]

**Tab. 2 Air pollution monitoring localities measuring basic pollutants, AMS, based on the owner, Czech Republic, 2008**

Zone / agglomeration	SO <sub>2</sub>		NO, NO <sub>2</sub> , NO <sub>x</sub>		PM <sub>10</sub>		O <sub>3</sub>		CO		BTX	
	CHMI	<sup>1</sup> Others SN	CHMI	<sup>1</sup> Others SN, SŠZE Žatec, VCs	CHMI	<sup>2</sup> Others P	CHMI	<sup>3</sup> Others O	CHMI	ZÚ, Město Plzeň, VCs, Statutární město Brno	CHMI	Město Plzeň, MÚ Pardubice, ČESRAF
Agglomeration Brno	2	5	3	5	2	5	2	2	2	5	1	–
Agglomeration Prague	14	–	15	–	14	–	8	–	6	6	4	–
Zone South Bohemian region	4	2	4	2	2	2	5	1	2	1	2	–
Zone South Moravian region	2	1	2	1	2	1	2	1	–	–	1	–
Zone Karlovy Vary region	4	2	4	2	4	1	2	–	2	–	1	–
Zone Hradec Králové region	4	1	4	1	3	1	4	1	1	1	1	–
Zone Liberec region	5	–	5	–	5	–	2	–	1	–	1	–
Agglomeration Moravian-Silesian region	14	3	15	3	13	3	6	–	3	–	4	–
Zone Olomouc region	3	3	3	3	3	1	3	3	1	–	1	–
Zone Pardubice	2	4	2	4	2	2	2	1	1	1	1	1
Zone Plzeň region	2	7	2	7	1	7	2	4	1	4	–	1
Zone Central Bohemian region	6	2	6	3	5	2	3	–	1	1	1	1
Zone Ústí nad Labem region	15	9	16	10	15	1	11	1	8	–	4	–
Zone Vysočina region	3	2	3	2	3	2	3	1	2	–	1	–
Zone Zlín region	2	1	2	1	2	–	2	1	1	–	1	–
Total	82	42	86	44	76	28	57	16	32	19	24	3
<b>Total</b>	<b>124</b>		<b>130</b>		<b>104</b>		<b>73</b>		<b>51</b>		<b>27</b>	

**Explanatory notes:**

<sup>1</sup>Others SN: ZÚ, ČEZ, ČESRAF, Město Plzeň, Město Zlín, Město Šumperk, Město Olomouc, Statutární město Brno, MÚ Pardubice, MÚ Třinec

<sup>2</sup>Others P: ZÚ, ČESRAF, Město Plzeň, Statutární město Brno, MÚ Třinec, SŠZE Žatec

<sup>3</sup>Others O: ZÚ, Město Plzeň, Město Zlín, Město Šumperk, Město Olomouc, Statutární město Brno, MÚ Pardubice, SŠZE Žatec

BTX Includes measurement of aromatic hydrocarbons:

benzen, toluen, etylbenzen, o-xylen, m-xylen, p-xylen, m,p-xylen /benzene, toluene, ethylbenzene, o-xylene, m-xylene, p-xylene, m,p-xylene.

Note: At certain stations the above measuring programme may be limited.

**Tab. 3 Air pollution monitoring localities measuring other pollutants and supplementary quantities, AMS, based on the owner, Czech Republic 2008**

Zone / agglomeration	PM <sub>2,5</sub>		PM <sub>1</sub>	NH <sub>3</sub>	Hg <sup>0</sup>	Meteo	
	CHMI	Město Plzeň, Statutární město Brno, VČs	Statutární město Brno	CHMI	CHMI	CHMI	Others
Agglomeration Brno	1	3	3	–	–	1	5
Agglomeration Prague	4	–	–	–	–	6	–
Zone South Bohemian region	1	–	–	–	–	3	1
Zone South Moravian region	–	–	–	1	–	2	–
Zone Karlovy Vary region	1	–	–	–	–	4	1
Zone Hradec Králové region	1	–	–	–	–	4	–
Zone Liberec region	1	–	–	–	–	4	–
Agglomeration Moravian-Silesian region	5	–	–	–	–	13	3
Zone Olomouc region	–	–	–	–	–	3	–
Zone Pardubice	1	–	–	1	–	1	2
Zone Plzeň region	–	1	–	–	–	1	3
Zone Central Bohemian region	2	1	–	–	–	4	2
Zone Ústí nad Labem region	4	–	–	1	1	14	10
Zone Vysočina region	1	–	–	–	–	2	–
Zone Zlín region	1	–	–	–	–	3	–
<b>Total</b>	<b>23</b>	<b>5</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>65</b>	<b>27</b>
<b>Total</b>	<b>28</b>		<b>3</b>	<b>3</b>	<b>1</b>	<b>92</b>	

**Explanatory notes:**

Others: ZÚ, ČEZ, MÚ Třinec, Město Plzeň, MÚ Pardubice, Statutární město Brno, ČESRAF, SŠZE Žatec, VČs (Vápenka Čertovy schody, a.s.)

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 certain stations the above measuring programme may be limited.

**Tab. 4 Air pollution monitoring localities measuring basic pollutants, manual methods, based on the owner, Czech Republic 2008**

Zone / agglomeration	SO <sub>2</sub>		NO <sub>2</sub>		PM <sub>10</sub>		HM		SPM		NO <sub>x</sub>
	CHMI	ZÚ (incl. ZÚ Kolín), FP(1)	CHMI	ZÚ (incl. ZÚ Kolín)	CHMI	ZÚ (incl. ZÚ Kolín), KMon	CHMI	ZÚ (incl. ZÚ Kolín)	CHMI	ZÚ	ZÚ
Agglomeration Brno	2	–	2	2	2	2	1	2	2	–	–
Agglomeration Prague	1	–	1	7	3	6	1	7	–	3	–
Zone South Bohemian region	2	–	2	–	3	–	2	1	–	–	–
Zone South Moravian region	1	–	2	–	3	–	1	1	–	–	–
Zone Karlovy Vary region	1	3	1	1	1	1	1	1	–	2	3
Zone Hradec Králové region	3	–	3	–	6	–	2	1	–	–	–
Zone Liberec region	3	–	3	–	4	2	3	2	–	–	–
Agglomeration Moravian-Silesian region	6	2	5	3	7	2	4	4	–	2	2
Zone Olomouc region	2	–	2	–	2	2	–	1	–	–	–
Zone Pardubice	4	–	4	–	5	–	2	2	–	–	–
Zone Plzeň region	2	–	2	–	3	–	1	3	–	–	–
Zone Central Bohemian region	5	4	5	6	5	8	1	9	–	–	–
Zone Ústí nad Labem region	4	5	4	5	8	7	3	8	–	1	5
Zone Vysočina region	3	1	4	–	3	1	1	3	1	–	1
Zone Zlín region	1	–	1	1	2	3	1	1	–	–	–
<b>Total</b>	<b>40</b>	<b>15</b>	<b>41</b>	<b>25</b>	<b>57</b>	<b>34</b>	<b>24</b>	<b>46</b>	<b>3</b>	<b>8</b>	<b>11</b>
<b>Total</b>	<b>55</b>		<b>66</b>		<b>91</b>		<b>70</b>		<b>11</b>		<b>11</b>

**Explanatory notes:**

KMon komunální monitoring/municipal monitoring [Město Šumperk (1), Město Olomouc (1), Město Zlín (1), Město Valašské Meziříčí(1)]

HM Includes measurement of the following elements:  
Al, As, Cd, Pb, Cr, Ni, Be, Hg, Mn, Fe, Cu, Zn, V.

**Note:** HM in PM<sub>10</sub> and in PM<sub>2,5</sub> are counted once  
ZÚ only aggreg. 24h data: CO: Prague and Ústí nad Labem region - 1 measurement, ozone: Ústí nad Labem region - 2 measurements, Moravian-Silesian region - 3 measurements  
At certain stations the above measuring programme may be limited.

**Tab. 5 Total number of monitoring localities with special measurements, manual methods, based on the owner, Czech Republic, 2008**

Zone / agglomeration	VOC	POPs		PM <sub>2.5</sub>		NH <sub>3</sub>	SNO <sub>3</sub> <sup>-</sup> SNH <sub>4</sub> <sup>+</sup> SO <sub>4</sub>	CS <sub>2</sub>	H <sub>2</sub> S
	CHMI	CHMI	ZÚ	CHMI	ZÚ	ZÚ	CHMI	ZÚ	ZÚ
Agglomeration Brno	2	1	1	–	–	–	–	–	–
Agglomeration Prague	2	2	1	2	1	–	1	–	–
Zone South Bohemian region	–	1	–	–	–	–	–	–	–
Zone South Moravian region	–	2	–	–	–	–	–	–	–
Zone Karlovy Vary region	1	1	–	–	–	–	–	–	–
Zone Hradec Králové region	–	1	1	3	–	–	–	–	–
Zone Liberec region	1	1	–	–	–	–	–	–	–
Agglomeration Moravian-Silesian region	1	3	3	2	–	–	–	–	1
Zone Olomouc region	1	–	–	–	–	–	–	–	–
Zone Pardubice	–	1	–	2	–	–	1	–	–
Zone Plzeň region	–	1	1	–	–	–	–	–	–
Zone Central Bohemian region	–	2	–	–	–	–	–	–	–
Zone Ústí nad Labem region	2	4	1	4	–	1	–	2	4
Zone Vysočina region	2	1	1	1	–	–	1	–	–
Zone Zlín region	–	1	–	–	–	–	–	–	–
<b>Total</b>	<b>12</b>	<b>22</b>	<b>9</b>	<b>14</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>5</b>
<b>Total</b>	<b>12</b>	<b>31</b>		<b>15</b>		<b>1</b>	<b>3</b>	<b>2</b>	<b>5</b>

**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, sum of xylenes, styrene, chloromethane, trichloromethane, chlorobenzene, sum of dichlorobenzenes, sum of trimethylbenzenes, dichloromethane, tetrachloromethane, karbon tetrachloride, trichlorethylene, tetrachlorethylene, trichlorethane, Freon 11, Freon 113, Freon 12.
- 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, PAHs, PCP28, PCB52, PCB101, PCB118, PCB138, PCB153, PCB180, p,p'-DDD, p,p'-DDE, p,p'-DDT.

**Note:** At certain stations the above measuring programme may be limited.