



Agenzia Regionale per la Protezione dell'Ambiente della Valle d'Aosta

Agence Régionale pour la Protection de l'Environnement de la Vallée d'Aoste

Monitoraggio delle emissioni atmosferiche e sonore dovute al traffico stradale in Valle d'Aosta

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Il monitoraggio della qualità dell'aria: l'integrazione di diversi strumenti

1. **Rete di monitoraggio ARPA:** informazioni puntuali
2. **Inventario Regionale delle emissioni:** analisi delle sorgenti di emissioni inquinanti in atmosfera (localizzazione e modulazione temporale)
3. **Modellistica di dispersione:** strumenti di calcolo per valutare le concentrazioni in tutto il territorio regionale.

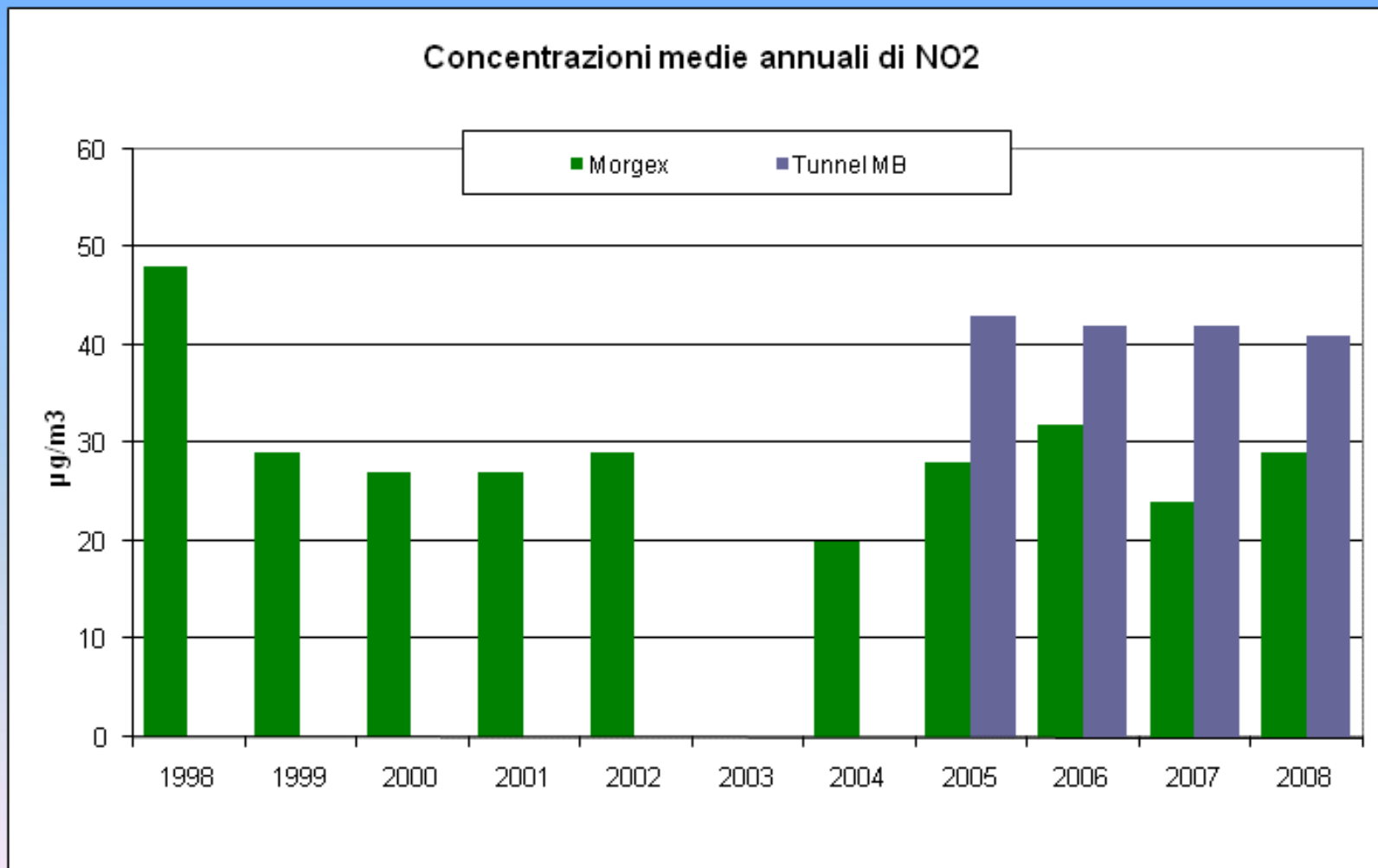
Rete ARPA di monitoraggio della Q.A.



Tipologie di stazioni:

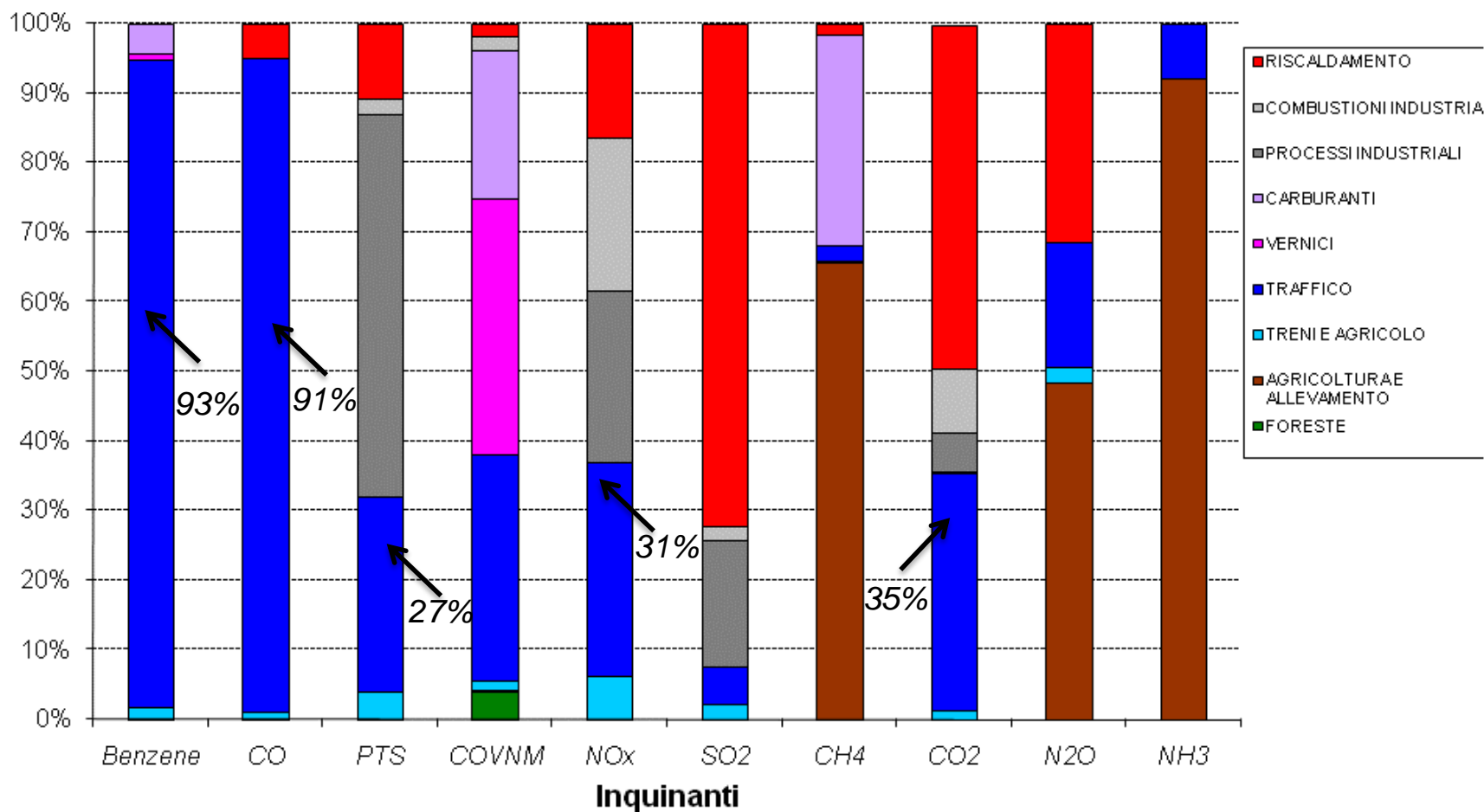
- urbane
- industriali
- bordo strada
- rurali

Monitoraggio della Q.A. verso il Traforo del Monte Bianco



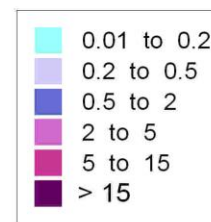
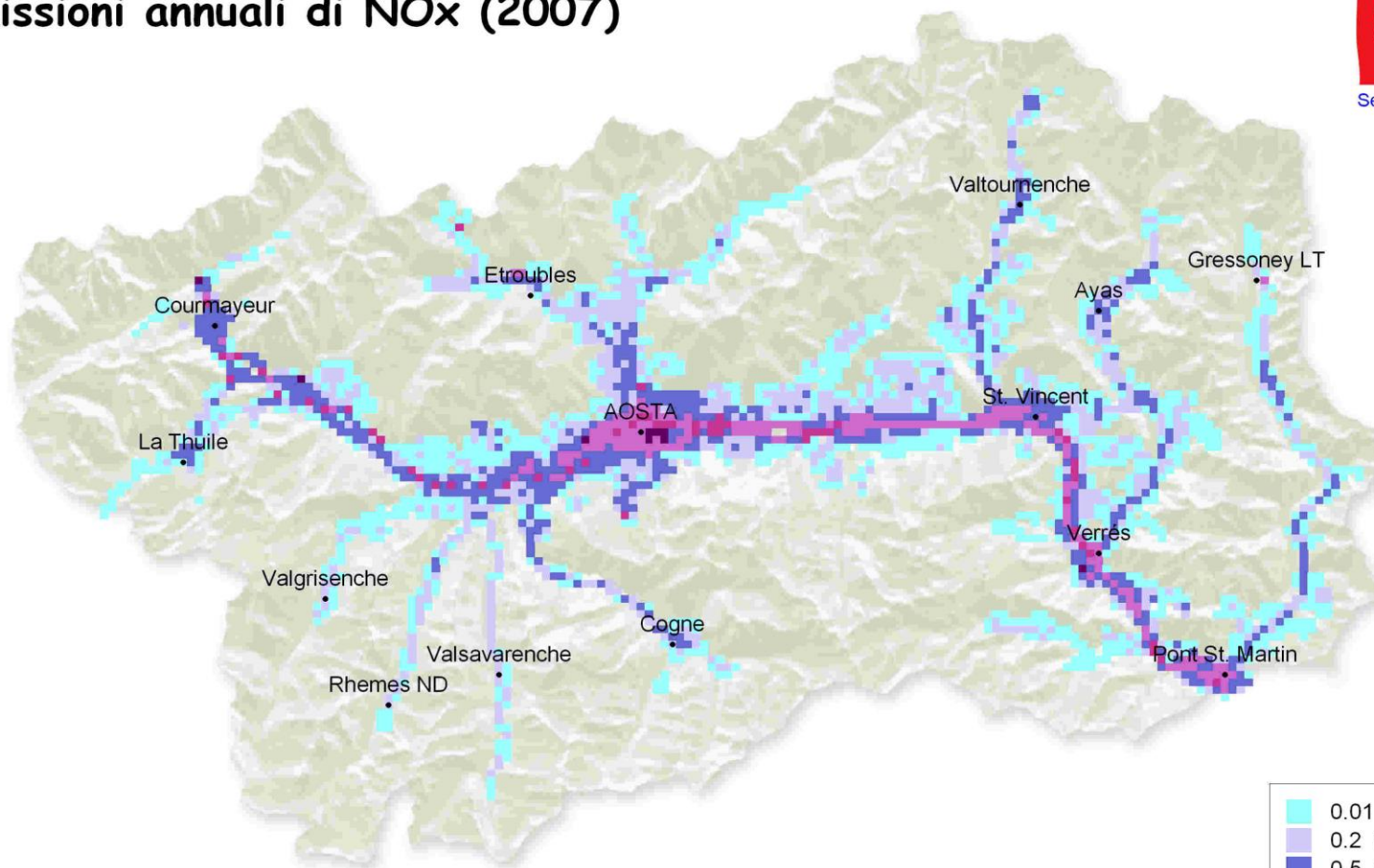
Inventario delle emissioni

Composizione emissioni in Aosta (anno 2007)



Inventario delle emissioni: mappe regionali

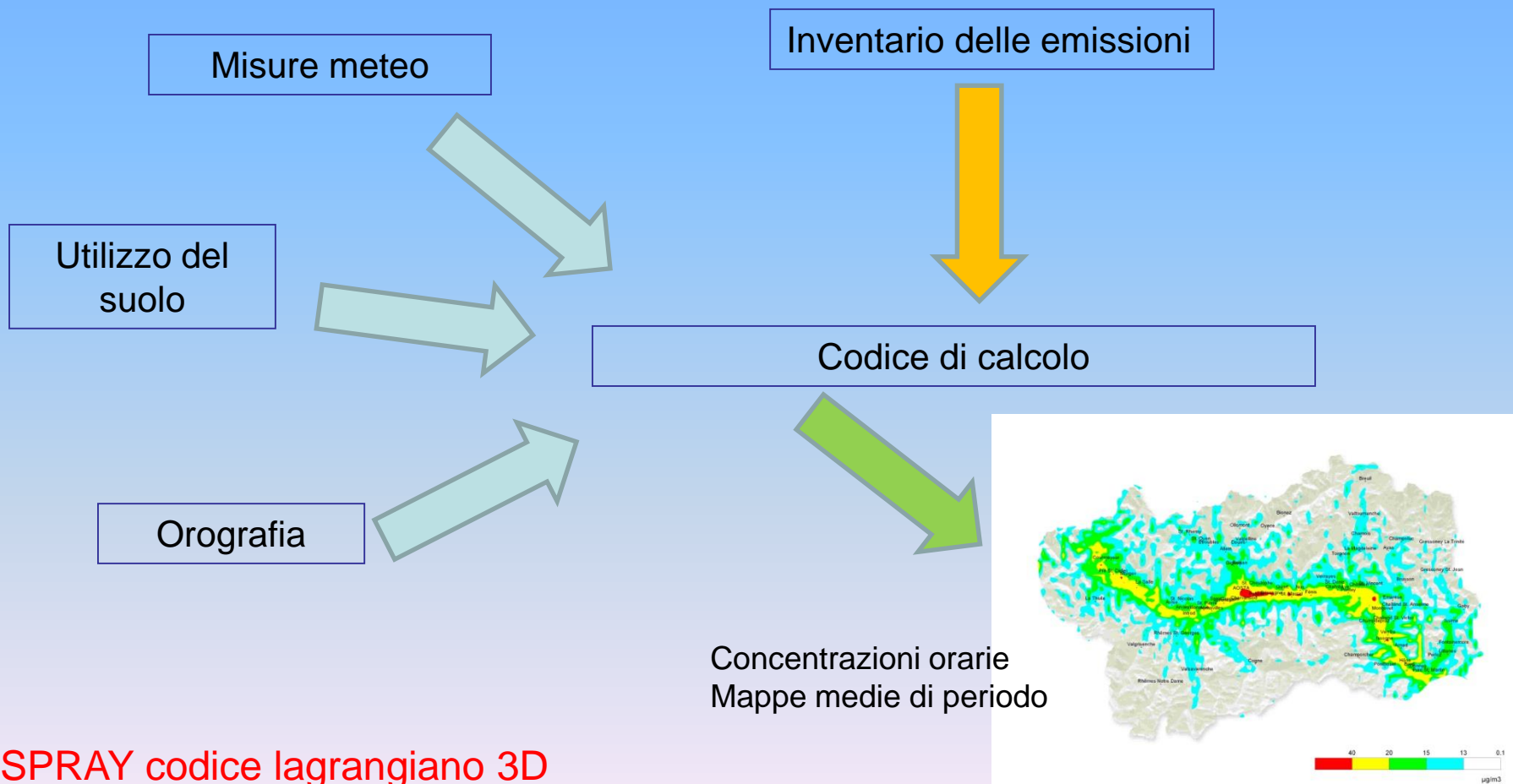
Emissioni annuali di NOx (2007)



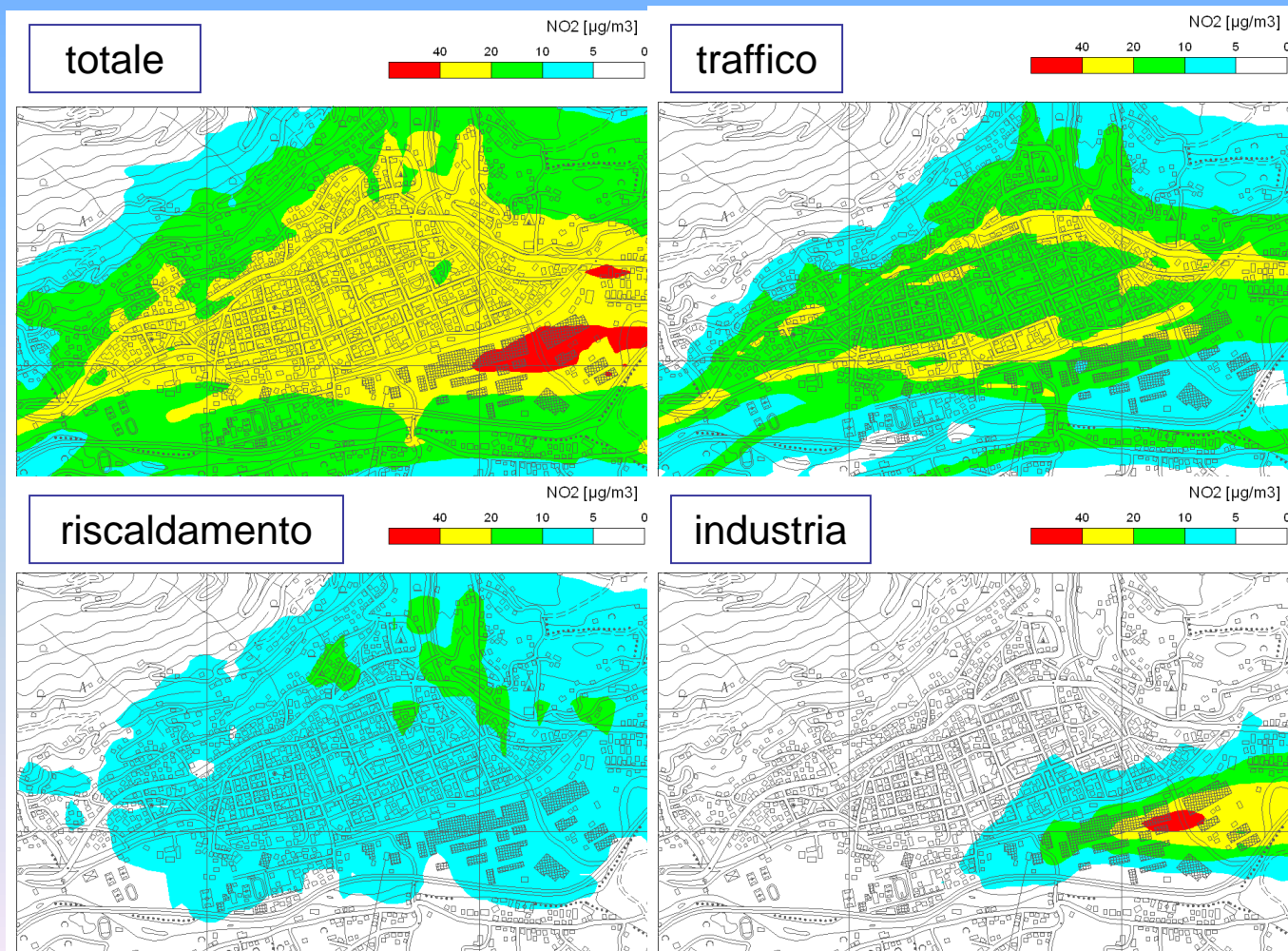
Stime aggiornate ad ottobre 2008

tonn / anno

Modellistica di dispersione degli inquinanti



Simulazione modellistica: apporti dei principali settori nell'area urbana di Aosta



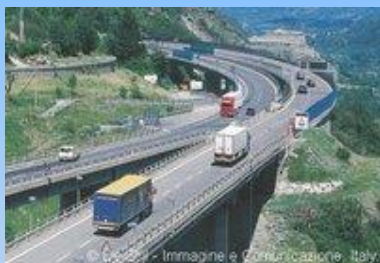
Progetto Interreg "MONITRAF" (2005-2008)



Monte Bianco



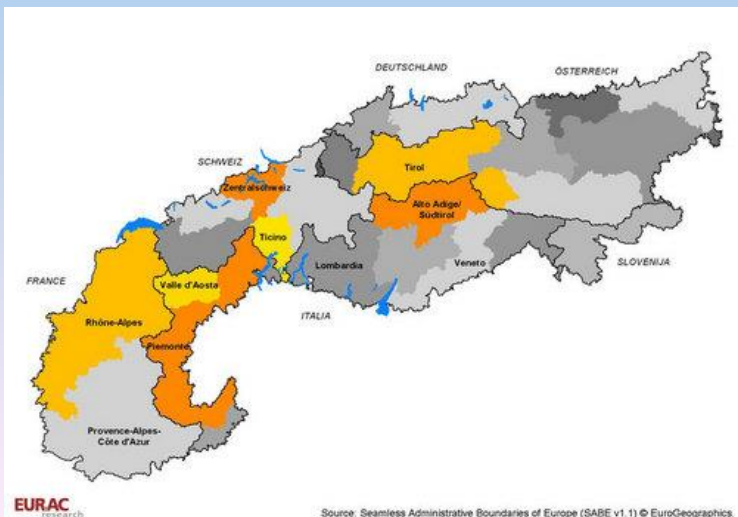
Brennero



Fréjus



Gottardo



www.monitraf.org

Set degli indicatori MONITRAF

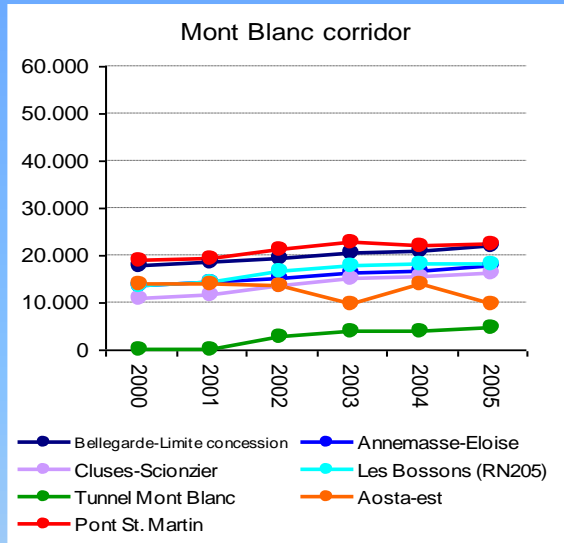
N°	Category	Name	Elaboration
1	Traffic	Traffic volume all vehicles	done
2	Traffic	Traffic volume heavy duty vehicles	
3	Traffic	Composition vehicle fleet (EURO classes)	
4	Traffic	Modal split freight transport (road and rail)	
5	Traffic	Yearly transalpine total tonnage	
6	Environment	Air concentration NO2: Hourly limit value for the protection of human health	done
7	Environment	Air concentration NO2: Daily limit value for the protection of human health	
8	Environment	Air concentration NO2: Annual limit value for the protection of human health	
9	Environment	Air concentration PM10: Annual limit value for the protection of human health	
10	Environment	Air concentration PM10: 24-hour limit value for the protection of human health	
11	Quality of life	Noise indicator	done
12	Quality of life	Cardiovascular and respiratory morbidity (Health indicator)	∅
13	Quality of life	Transport accidents	done
14	Quality of life	Investments in noise protection infrastructure	∅
15	Infrastructure	Investments in transport infrastructure	∅
16	Pricing and regulation	Toll prices	done
17	Pricing and regulation	Fuel prices	done
18	Economy	GDP per inhabitant	done
19	Society	Population	done
20	Society	Unemployment rate	done
21	Economy	Number of employees in transport sector	∅
22	Economy	Number of tourist beds	done
23	Economy	Overnight stays	done
24	Society	Migration balance	done
25	Society	Birth balance	done

∅ = dati insufficienti

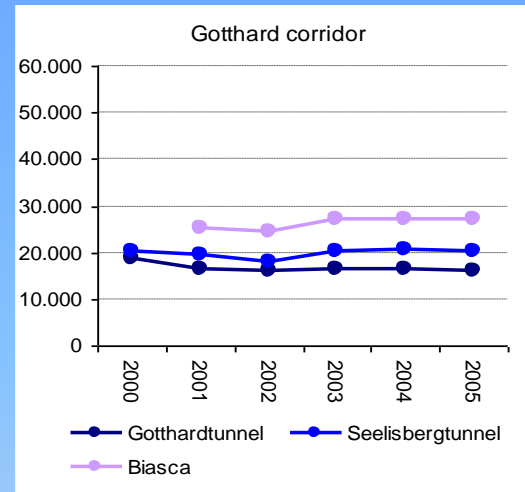
>120'000 dati

Ind. 01-02: Traffico stradale

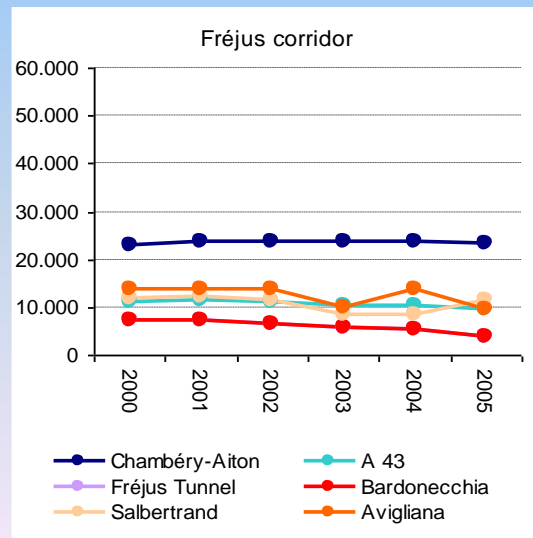
5000
(1700 VP)



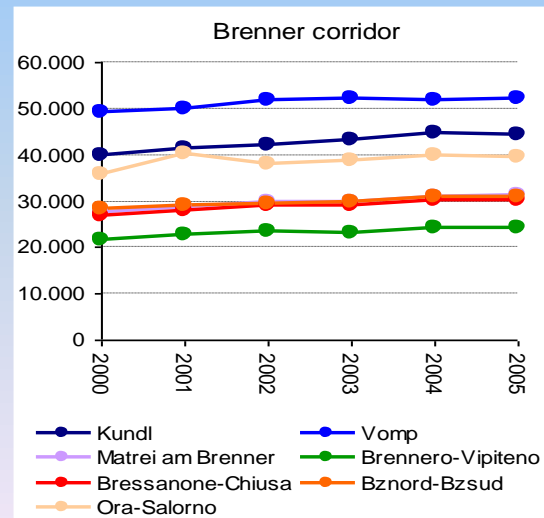
16000
(2500 VP)



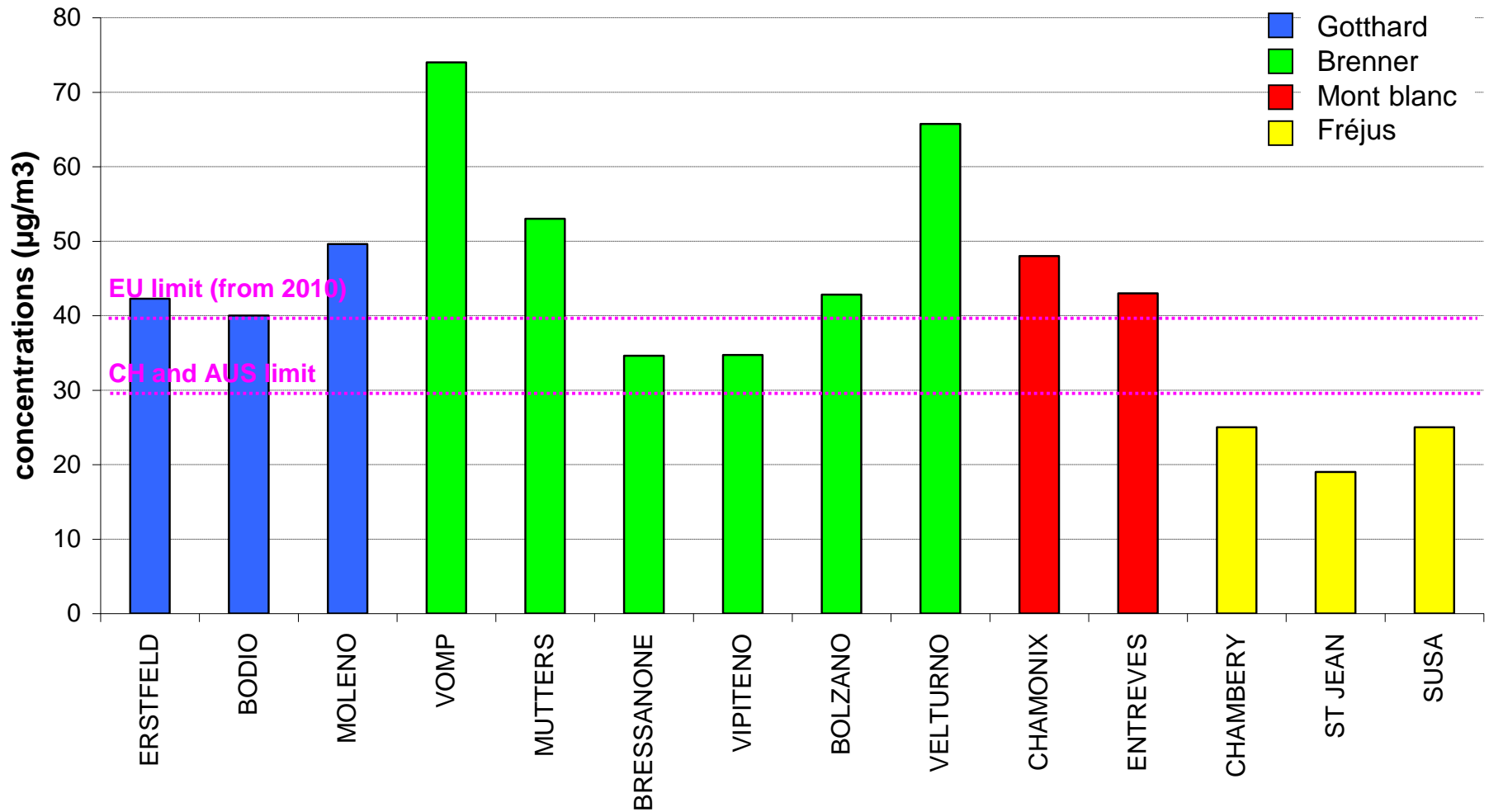
4000
(2000 VP)



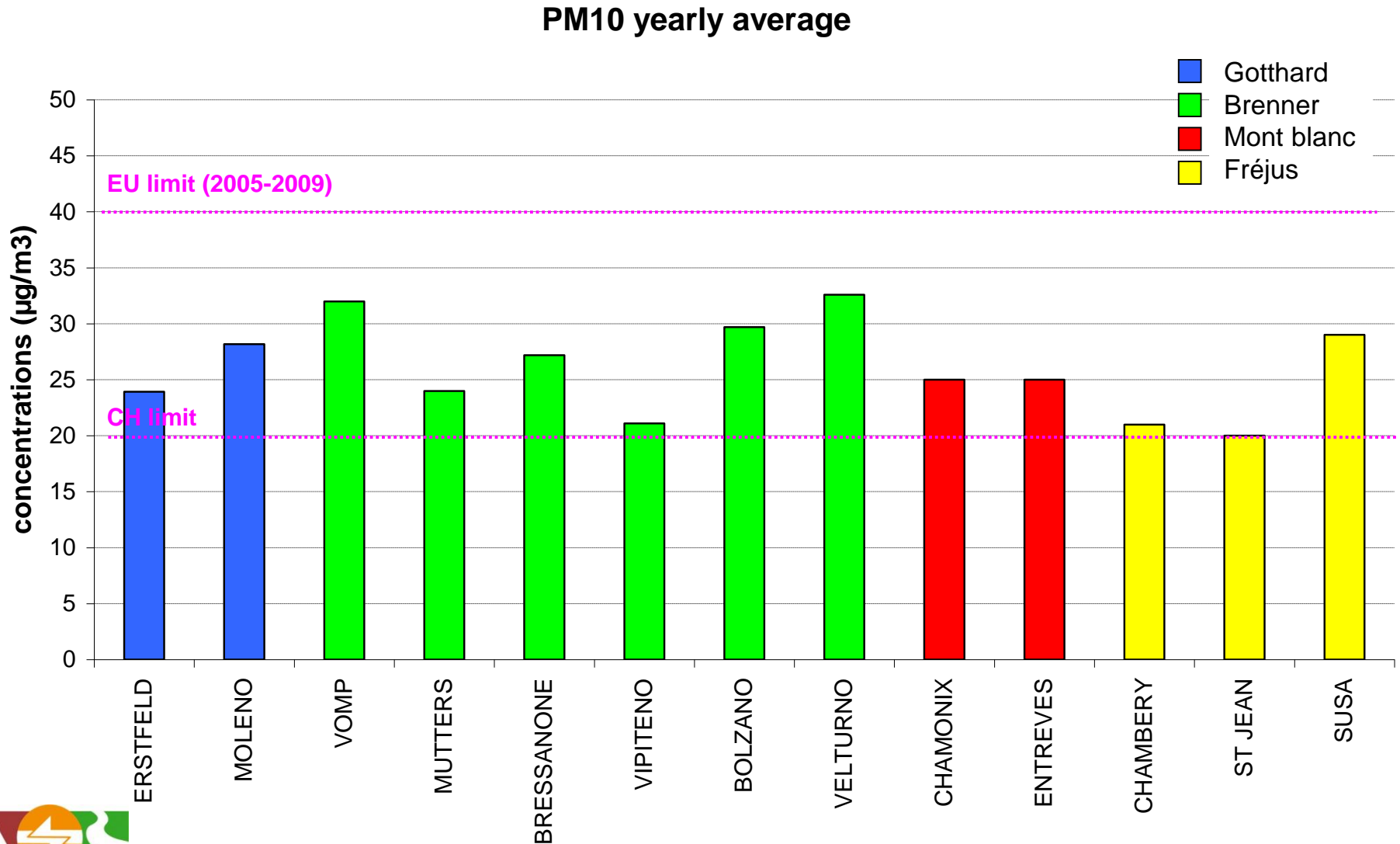
24000
(8000 VP)



Ind. 06-08: Concentrazioni di NO2

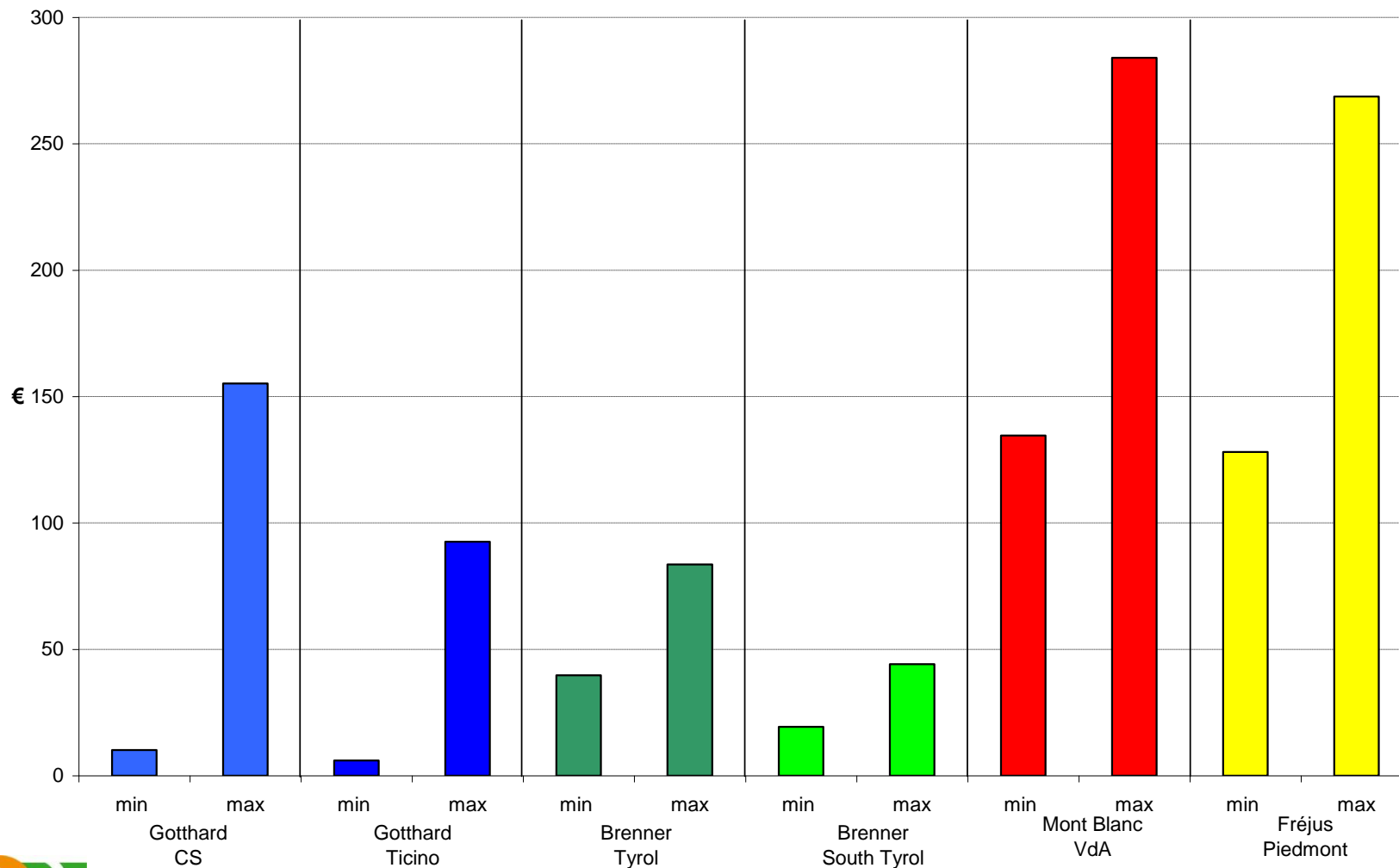


Ind. 09-10: Concentrazioni di PM10



Ind. 16: Pedaggi

Pedaggio minimo e massimo per i VP (2006)





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Conclusioni ????

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