

The iMONITRAF! Geographic Information (WebGIS) system

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European Academy Bolzano (EURAC Research)
Institute for Regional Development and Location Management

3rd iMONITRAF! Transport Forum
Lyon, May 31st 2012

The iMONITRAF! WebGIS system

The screenshot displays the iMONITRAF! WebGIS interface. At the top left is the iMONITRAF! logo. To its right is a search bar labeled "Find a Place:". On the top right is the "Alpine SPACE" logo with the text "THE PROJECT IS CO-FUNDED BY THE EUROPEAN REGIONAL DEVELOPMENT FUND" and "Investing in your future". Below the search bar is a toolbar with various navigation and tool icons. The main map area shows a satellite view of the Alpine region with several cities labeled: Kempten (Allgäu), Salzburg, Innsbruck, Luzern, Bolzano, Trento, Villach, Maribor, Annecy, Chambéry, and Grenoble. A legend on the right side of the map lists various layers: Roads (National Road, Highway), Waterways, Built up Areas, Country Boundaries, NUTS2, NUTS3, Terrain, Elevation Model, Satellite Image, and Alpineconvention Perimeter. The "Satellite Image" and "Country Boundaries" layers are checked.

Query Table Chart

Indicator:

- A: Road traffic fluxes
- B: Composition vehicle fleet
- C: Rail traffic fluxes
- D: Air pollutant emissions
- E: Toll prices
- F: Fuel prices
- G: GDP per inhabitant
- H: Transportation employees

Road traffic fluxes (Area: Alpine Arc):

Measuring St.:

- ALL
- Aiton
- Aosta-Est
- Aosta-Ovest
- Avigliana
- Banera di Ugovizza
- Biasca
- Bolzano North - Bolzano South
- Bolzano South - Ora
- Bonneville

Year:

- ALL
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010

- Light Vehicles per year
- Heavy Duty Vehicles per year
- Total Vehicles per year
- Average Daily Traffic Light Vehicles
- Average Daily Traffic Heavy Duty Vehicles
- Average Daily Traffic all Vehicles

SHOW DATA

The iMONITRAF! WebGIS system

Action 5.4

Specification according to the Application Form

- Instrument for cartographic presentations of iMONITRAF! results
 - Monitoring data collected in WP5
 - Visualization of other iMONITRAF! results

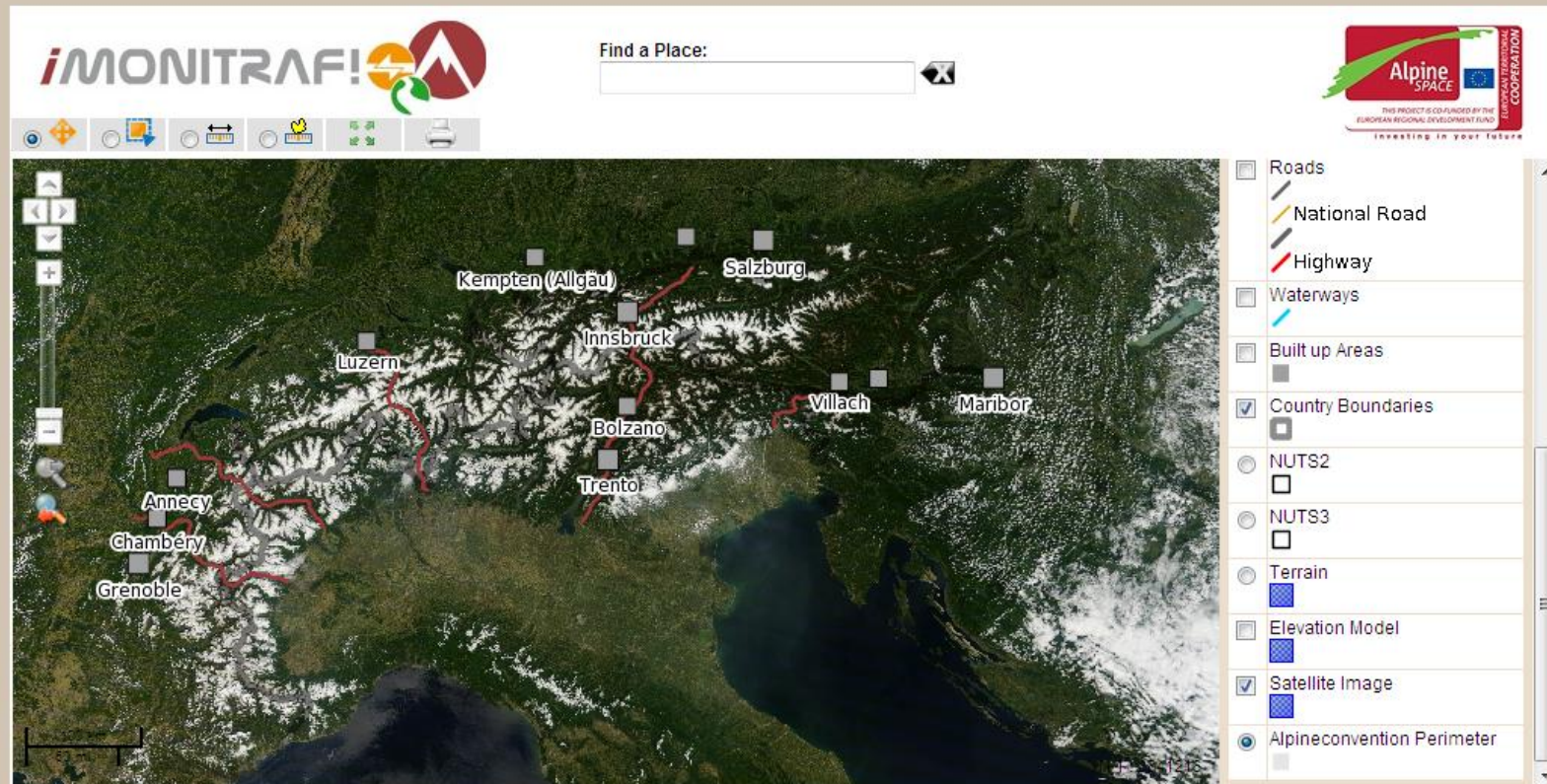
The iMONITRAF! WebGIS system

Action 5.4

Main features

- Visualization of the project area
- Selection and visualization of:
 - Specific areas (Corridors, NUTS regions)
 - Specific parameters
- Performance of data queries
- Visualization of the results through tables or charts

The iMONITRAF! WebGIS system



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SHOW DATA



- iMONITRAF! Corridor
- Region NUTS 2
- Region NUTS 3
- Map Legend
- Best Practice Areas
- Measuring Stations
- Settlements
- MONITRAF 5 Corridors
- Railways
- Roads
 - National Road
 - Highway
- Waterways
- Built up Areas

Query

Table

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SHOW DATA



iMONITRAF! Corridor

- All [Study Area Alpine Arc]
- Brenner
- Fréjus
- Gotthard
- Mont Blanc
- Tarvisio

Region NUTS 2

Region NUTS 3

Map Legend

- Best Practice Areas
- Measuring Stations
- Settlements
- MONITRAF 5 Corridors
- Railways
- Roads

Query

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iMONITRAF! Corridor

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Region NUTS 2

Region NUTS 3

Map Legend

- Best Practice Areas
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 - City (10.000-100.000)
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Road traffic fluxes (Active filter on corridor: Fréjus):

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iMONITRAF! Corridor

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- Fréjus**
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Region NUTS 2

Region NUTS 3

Map Legend

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Region NUTS 2

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Year:

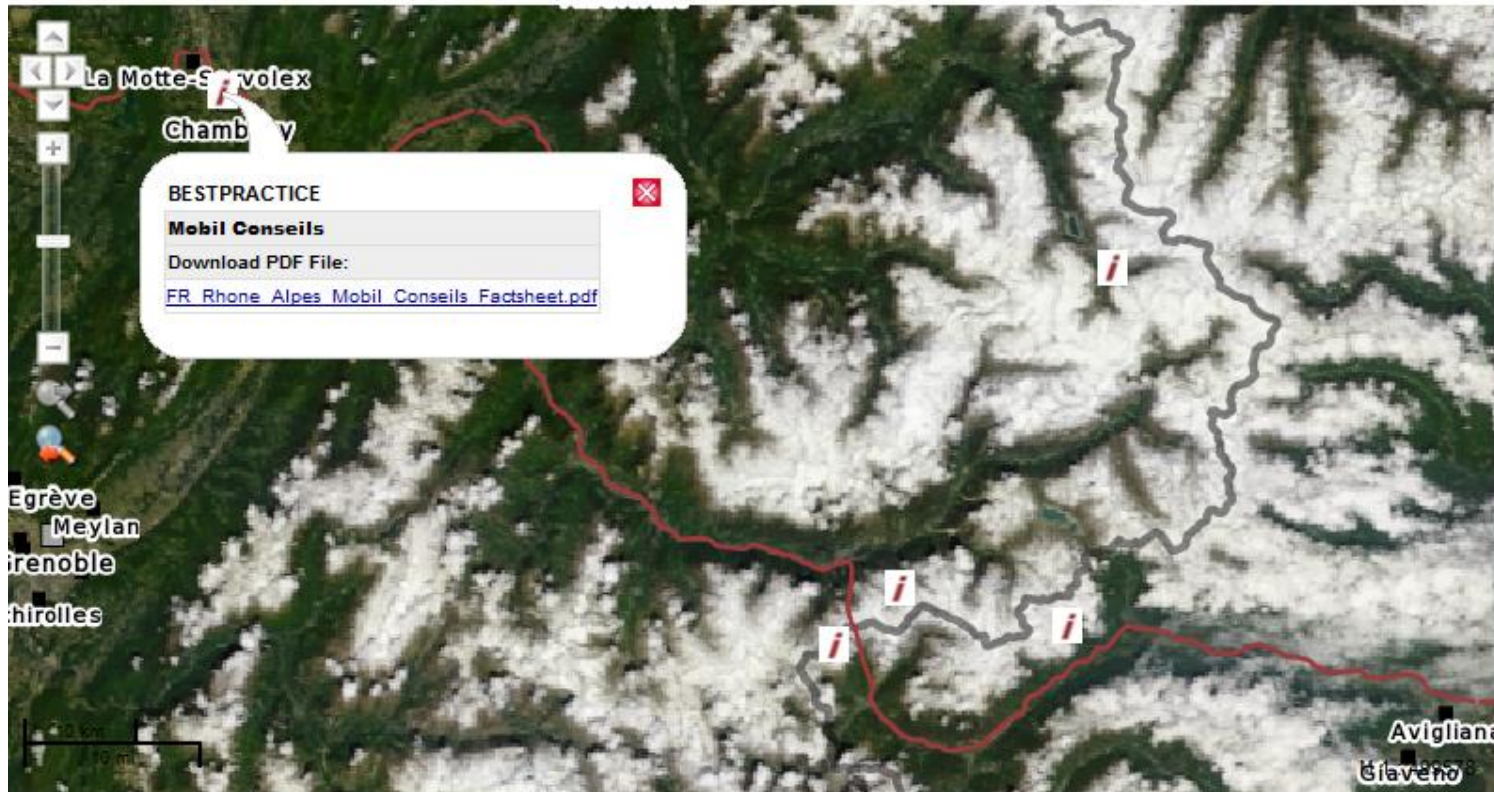
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SHOW DATA



Fréjus



iMONITRAF! Corridor

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Region NUTS 2

Region NUTS 3

Map Legend

- Best Practice Areas
 - i*
- Measuring Stations
 - ◆
- Settlements
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Query

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SHOW DATA



Legend

- Gotthard
- Mont Blanc
- Tarvisio
- Region NUTS 2
- Region NUTS 3
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- Best Practice Areas
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 - Federal Road
 - National Road
 - Highway

Query Table Chart

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Road traffic fluxes (Active filter on corridor: Fréjus):

Measuring St.: ALL Aiton Avigliana Fréjus Tunnel France Fréjus Tunnel Italy Planaise Salbertrand

Year: ALL 2005 2006 2007 2008 2009 2010

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SHOW DATA



Fréjus

- Gotthard
- Mont Blanc
- Tarvisio

Region NUTS 2

Region NUTS 3

Map Legend

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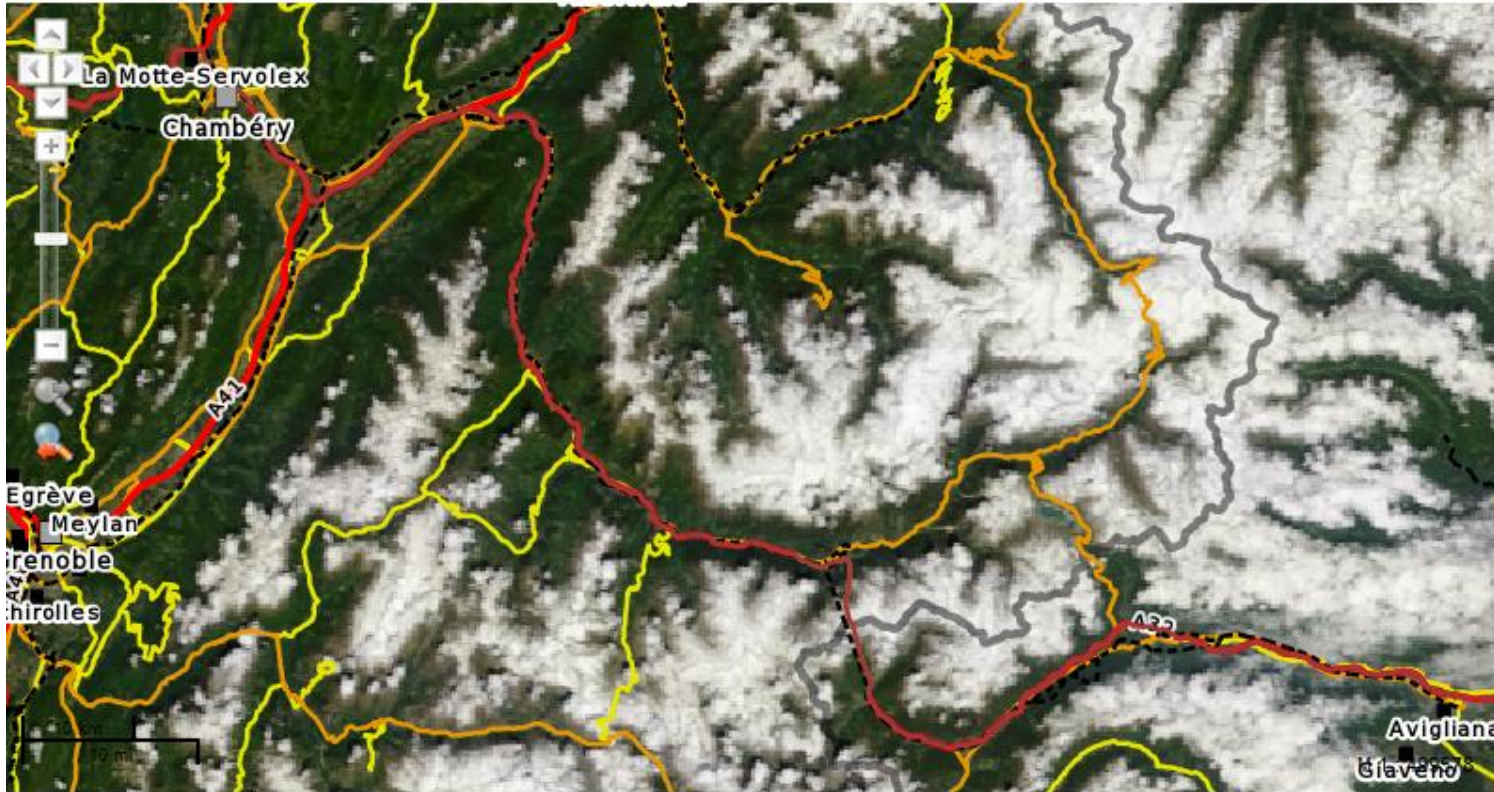
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SHOW DATA



Fréjus



- National Road
- Highway
- Waterways
 - Major Rivers
 - Mid Rivers
 - Small Rivers
 - Connecting Rivers
- Built up Areas
- Country Boundaries
- NUTS2
- NUTS3
- Terrain
- Elevation Model
- Satellite Image
- Alpineconvention Perimeter

Query

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Fréjus



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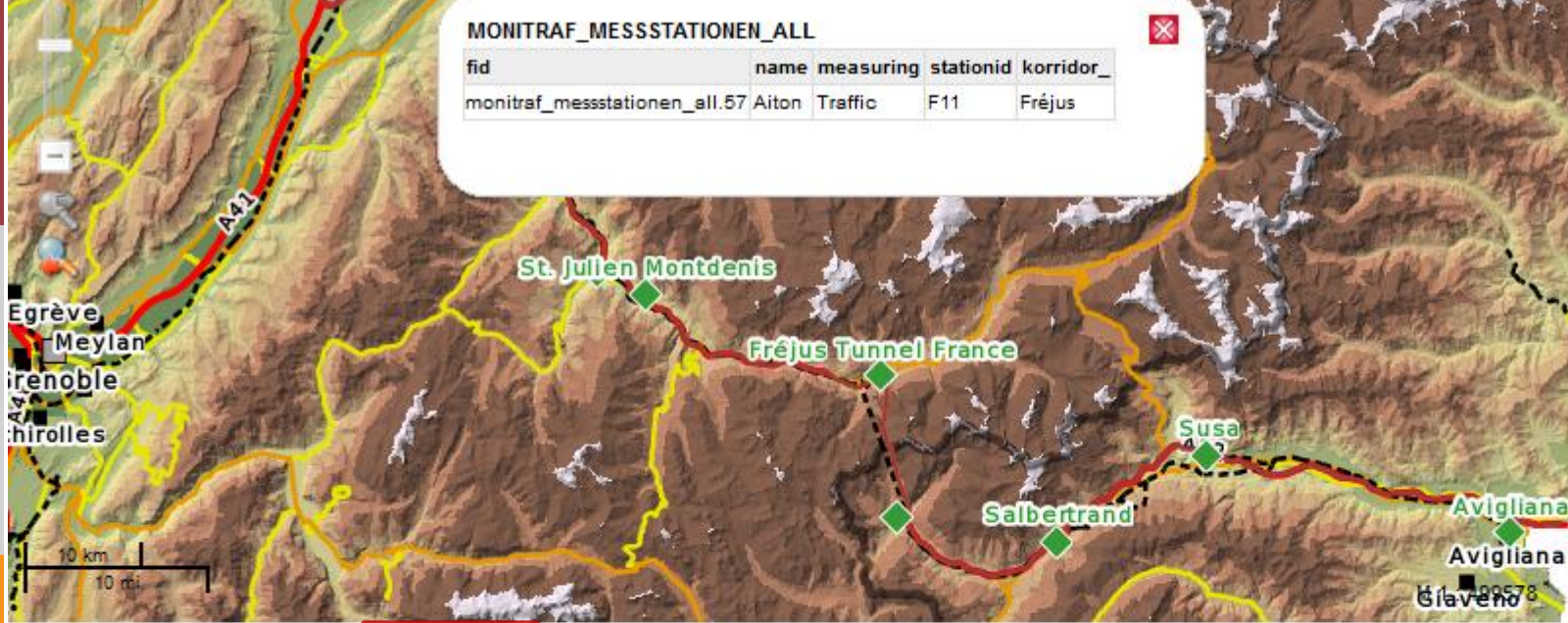
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SHOW DATA

MONITRAF_MESSSTATIONEN_ALL

fid	name	measuring	stationid	korridor_
monitraf_messstationen_all.57	Aiton	Traffic	F11	Fréjus



- Highway
- Waterways
- Built up Areas
- Country Boundaries
- NUTS2
- NUTS3
- Terrain
- Elevation Model
- Satellite Image

Query Table **Chart**

Road traffic fluxes

Unit: Vehicles

Filter by [Measuring St.]: Aiton

Year	Light Vehicles per year	Heavy Duty Vehicles per year	Total Vehicles per year
2005	2221664	1240080	3461744
2006	2387368	1266793	3654161
2007	2436734	1323542	3760276
2008	2406506	1270391	3676897
2009	2485533	1128424	3613957
2010	2569294	1194222	3763516

Unit: Vehicles

Data sources: Highway authorities
 Data source:
 Rhône-Alpes: GEIE TMB (Mont Blanc tunnel), SFTRF (Frejus tunnel) and ATMB and AREA (for A40 and A43 highways);
 Piedmont: SAV Autostrade, GEIE Mont Blanc;
 Central Switzerland: Automatic Traffic Counts Data (1997-2005).
 Owner: Federal Road Office (FEDRO).
 Data sources: AVZ;
 Ticino: Repubblica e cantone Ticino, Osservatorio ambientale svizzera italiana;
 Tyrol: Verkehr in Tirol - Bericht 2010; Amt der Tiroler Landesregierung, Abteilung Verkehrsplanung;
 South Tyrol: Autostrada del Brennero S.P.A. / Brennerautobahn A.G.;
 Friuli-Venezia Giulia: Autostrade per l'Italia S.p.A.

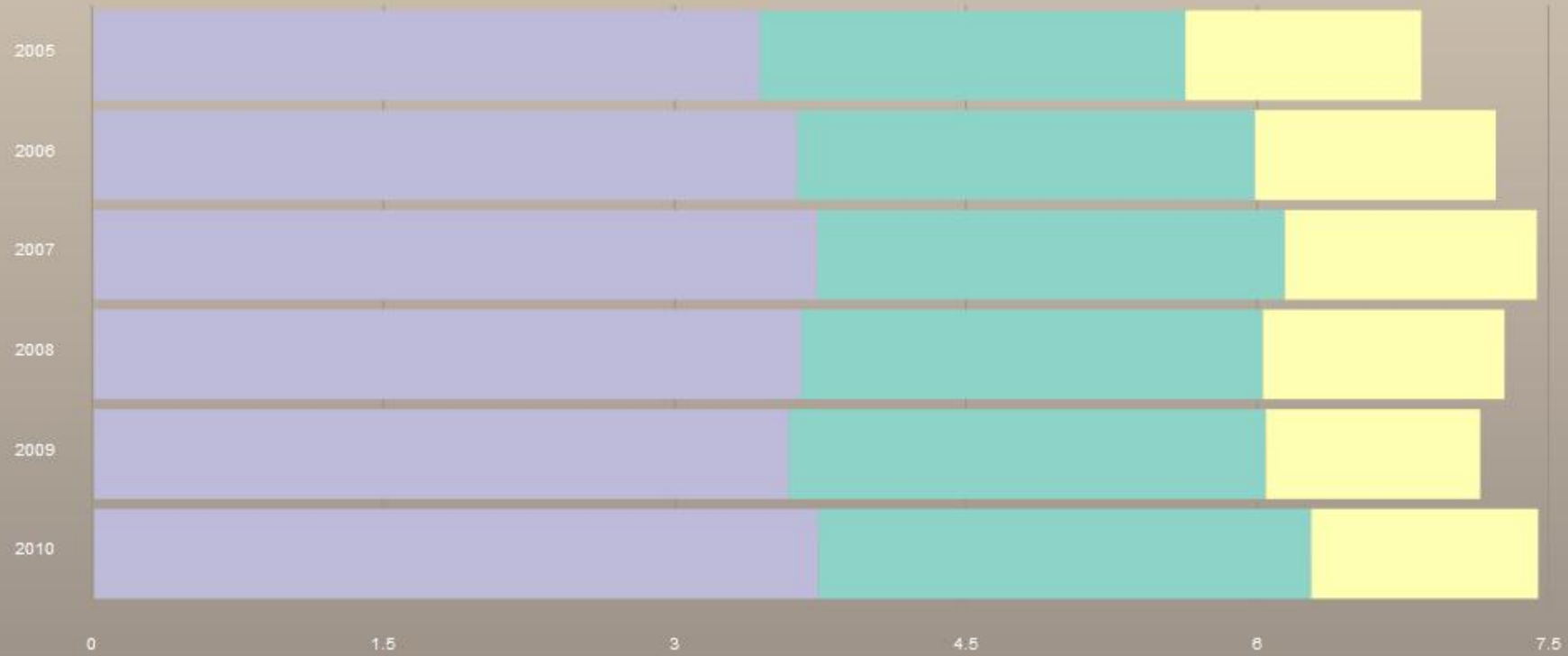


- Terrain
- Elevation Model
- Satellite Image
- Alpineconvention Perimeter

Query Table **Chart**

Filter by [Measuring St.]: Aiton

Total Vehicles per year
 Light Vehicles per year
 Heavy Duty Vehicles per year

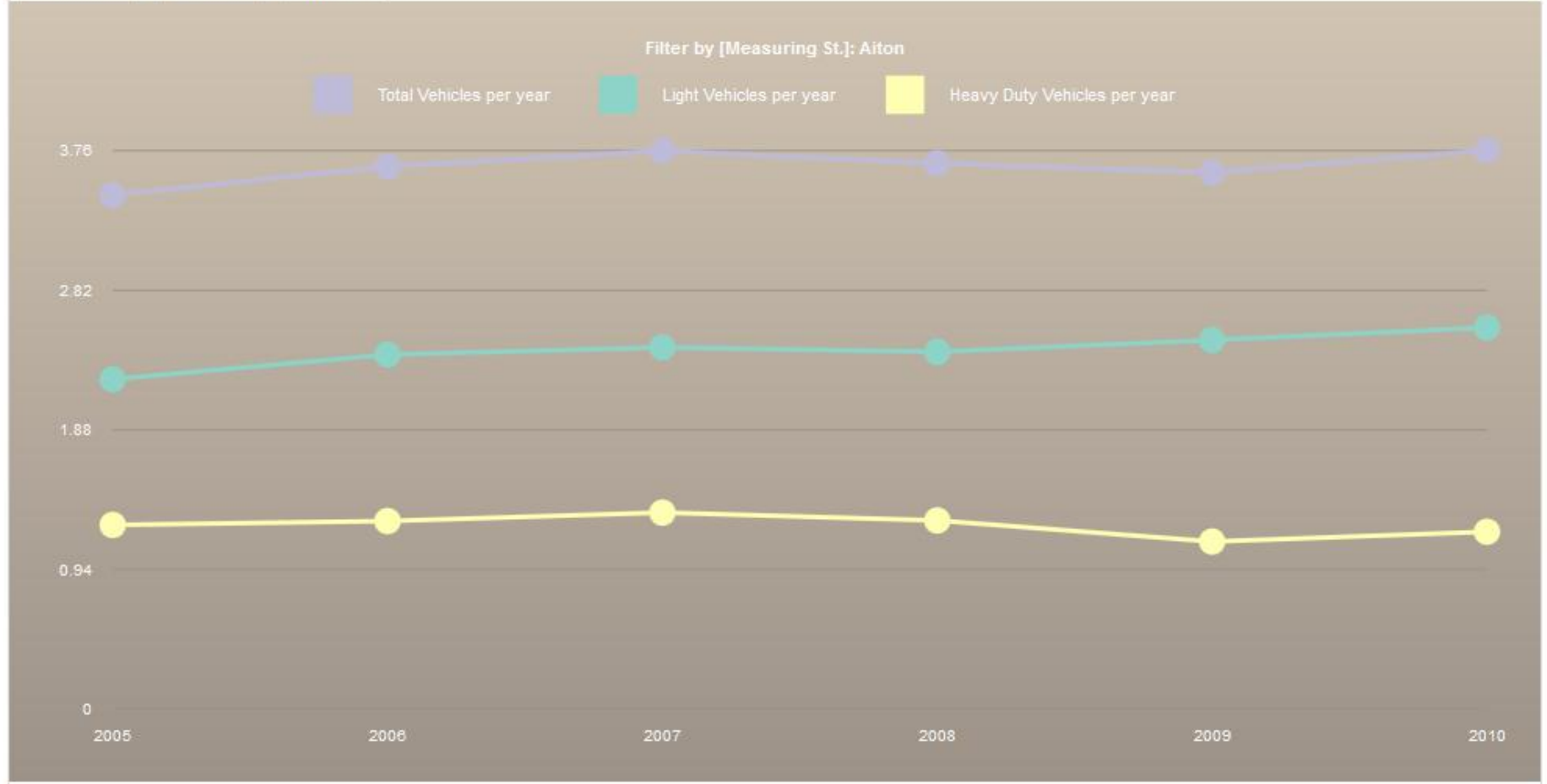


Change charttype to: Line Pie Bar SideBar StackedBar SideStackedBar AccumulatorBar



- NUTS3
- Terrain
- Elevation Model
- Satellite Image

Query Table Chart



Change charttype to: Line Pie Bar SideBar StackedBar SideStackedBar AccumulatorBar



iMONITRAF! Corridor

- All [Study Area Alpine Arc]
- Brenner
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- Mont Blanc
- Tarvisio

Region NUTS 2

Region NUTS 3

Map Legend

- Best Practice Areas
- Measuring Stations
- Settlements
- MONITRAF 5 Corridors
- Railways
- Roads

M 1 : 3841216

Query | Table | Chart

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Road traffic fluxes (Area: Alpine Arc):

Measuring St.:

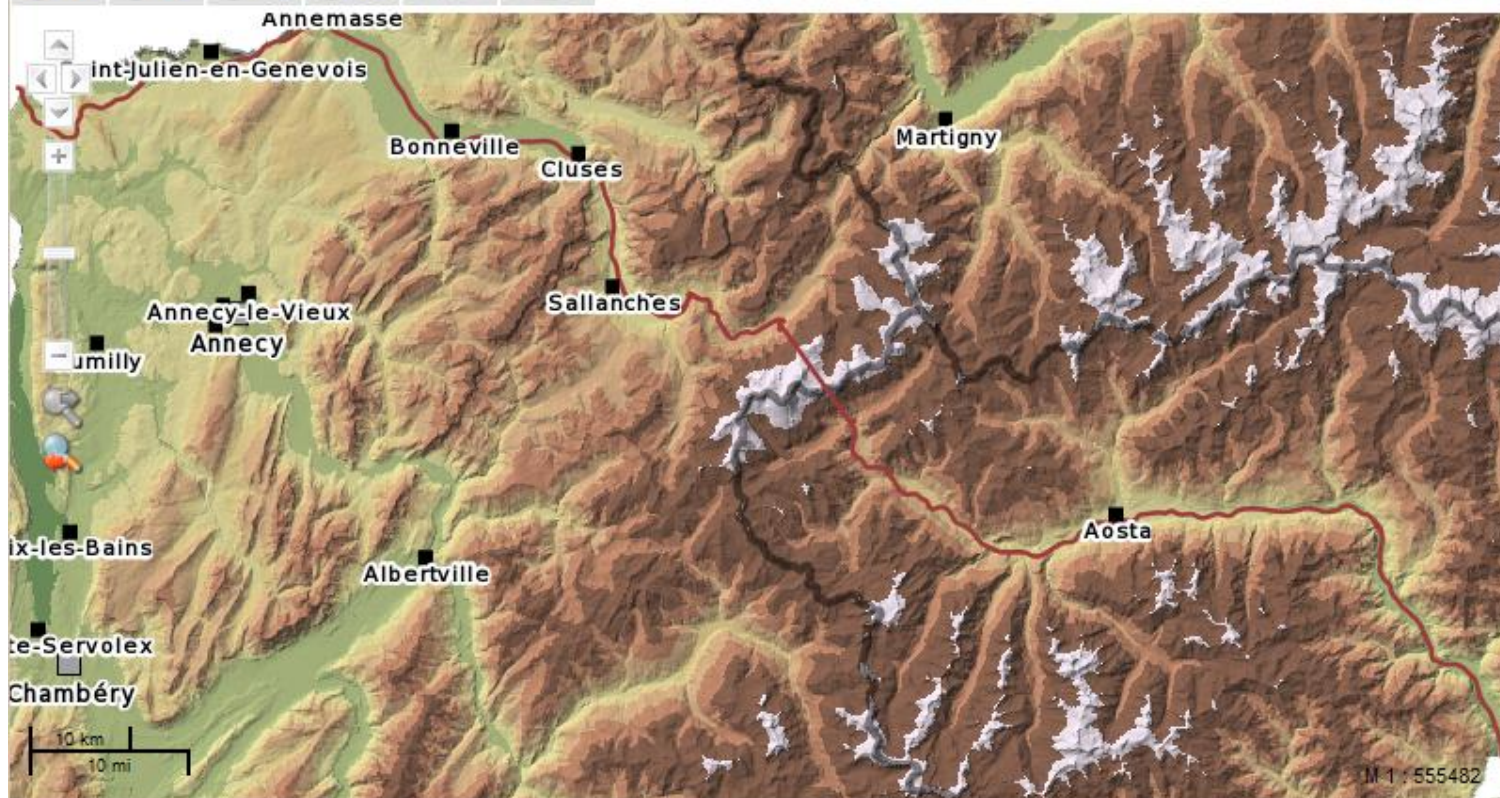
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- Roads
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Query

Table

Chart

Indicator:

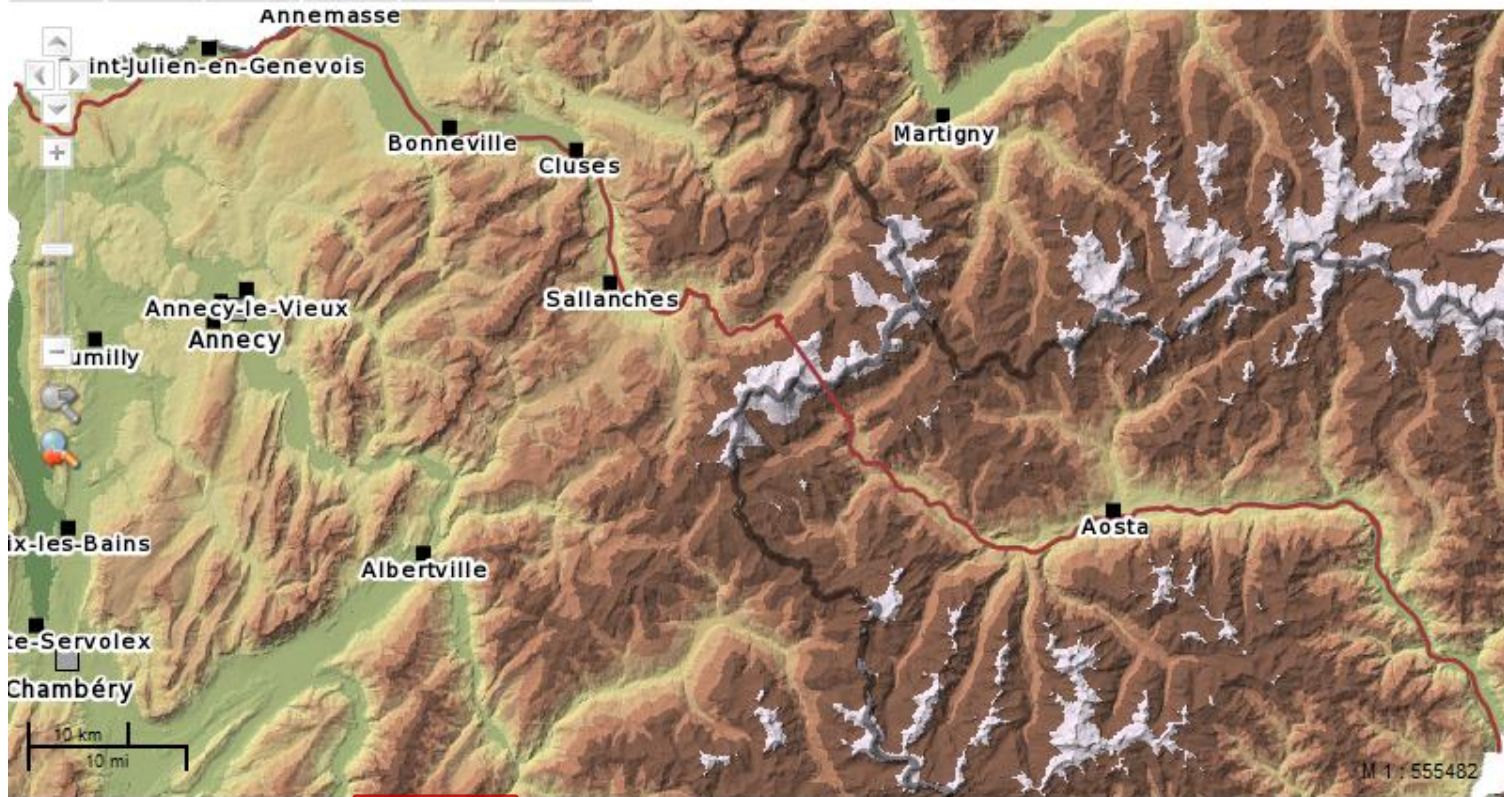
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- H: Transportation employees

GDP per inhabitant (Active filter on corridor: Mont Blanc):

Region (NUTS3): Year:

Region (NUTS3)	Year
ALL	ALL
Haute-Savoie	2000
Isère	2001
Savoie	2002
Torino	2003
Valle d'Aosta	2004
	2005
	2006
	2007
	2008

SHOW DATA



- Roads
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Query Table **Chart**

GDP per inhabitant

Unit: Euro

Region (NUTS3)	GDP per inhabitant,									
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Haute-Savoie	24000	24900	24700	25700	26600	27000	28000	28500	29000	No Data
Isère	23500	23900	24100	24800	25700	26400	27700	28500	29000	No Data
Savoie	24100	25200	26400	27300	28600	29500	31100	32100	32800	No Data
Torino	24500	25200	26000	26500	27300	27600	28300	28800	28900	No Data
Valle d'Aosta	24000	25700	26400	27600	28400	28800	29500	30100	30600	No Data

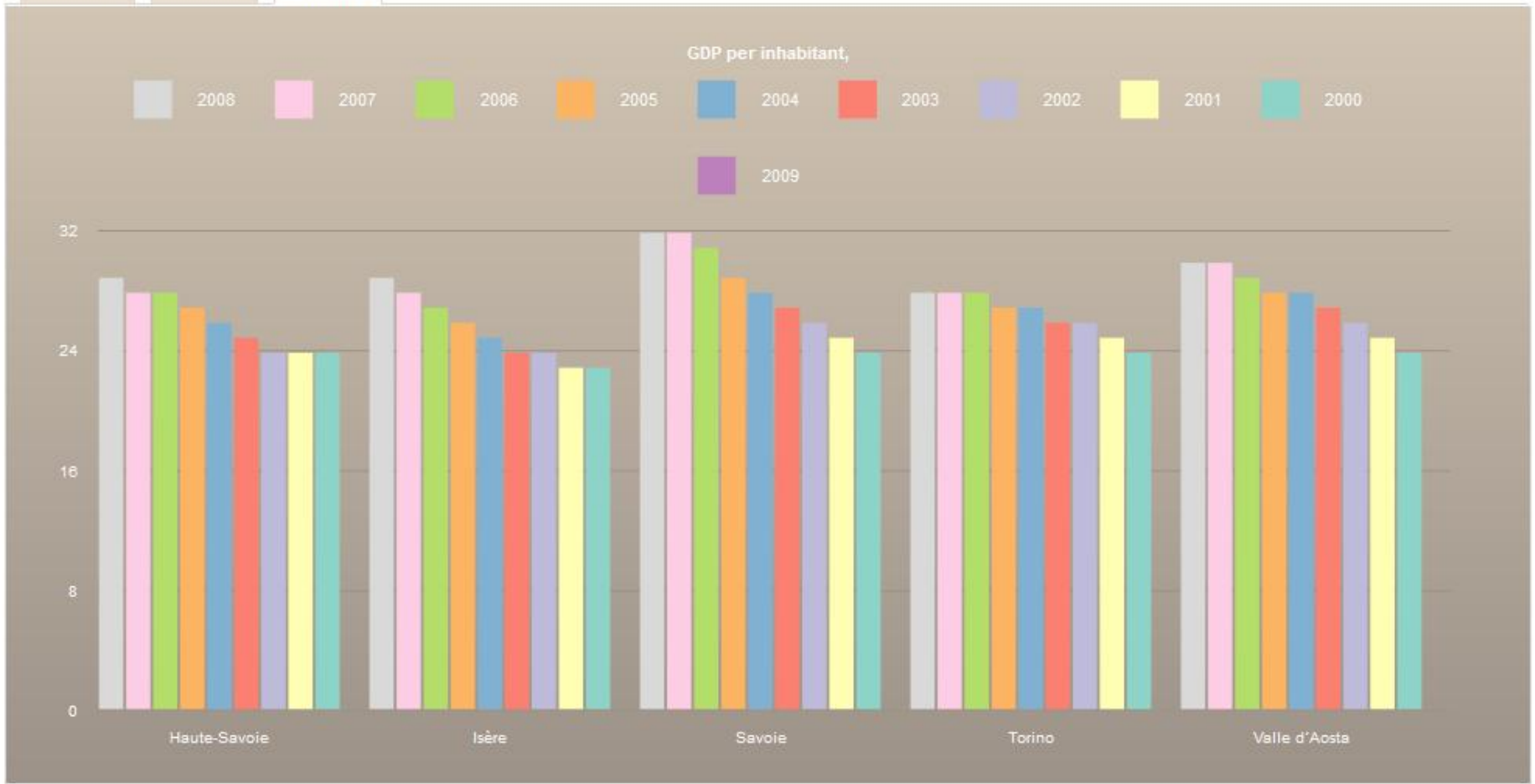
Unit: Euro

Data source:
All except Switzerland: EUROSTAT. Switzerland: BAKBasel.
Remark for Switzerland: Data from 2000-2005 is national income instead of the GDP



- Measuring Stations
- Settlements
 - City (10.000-100.000)
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Query Table Chart



Change charttype to: Line Pie Bar SideBar StackedBar SideStackedBar AccumulatorBar

The iMONITRAF! WebGIS system

- Web address: www.imonitraf.org
- Today: testing station outside the conference room

Thank you for your attention!

Matthias Wagner

EURAC research

Institute for Regional Development and Location Management

Viale Druso 1

I-39100 Bolzano Bozen

matthias.wagner@eurac.edu