

SIGMA

Integrated Information System
for Public Administration

What is SIGMA?

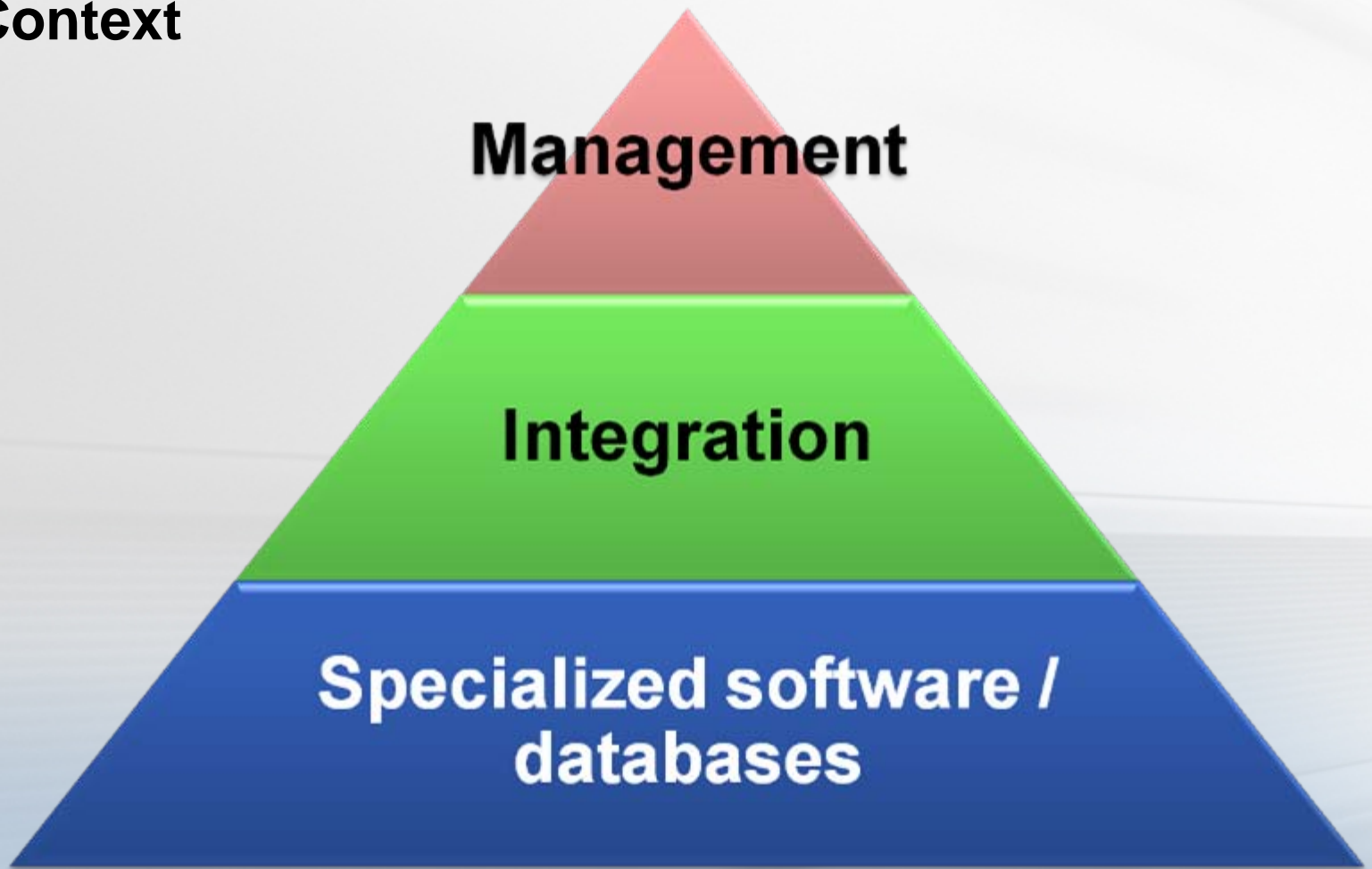
Strategies and decisions based on facts!

- **business intelligence software for effective management**
- **integrates data from multiple sources**
- **high impact interactive graphical interface**

Provides:

- **basic GIS functions / map based interface**
- **analysis, prediction and reporting functions**
- **scenarios modeling and evaluating tools**
- **multiple formats outputs**

Context



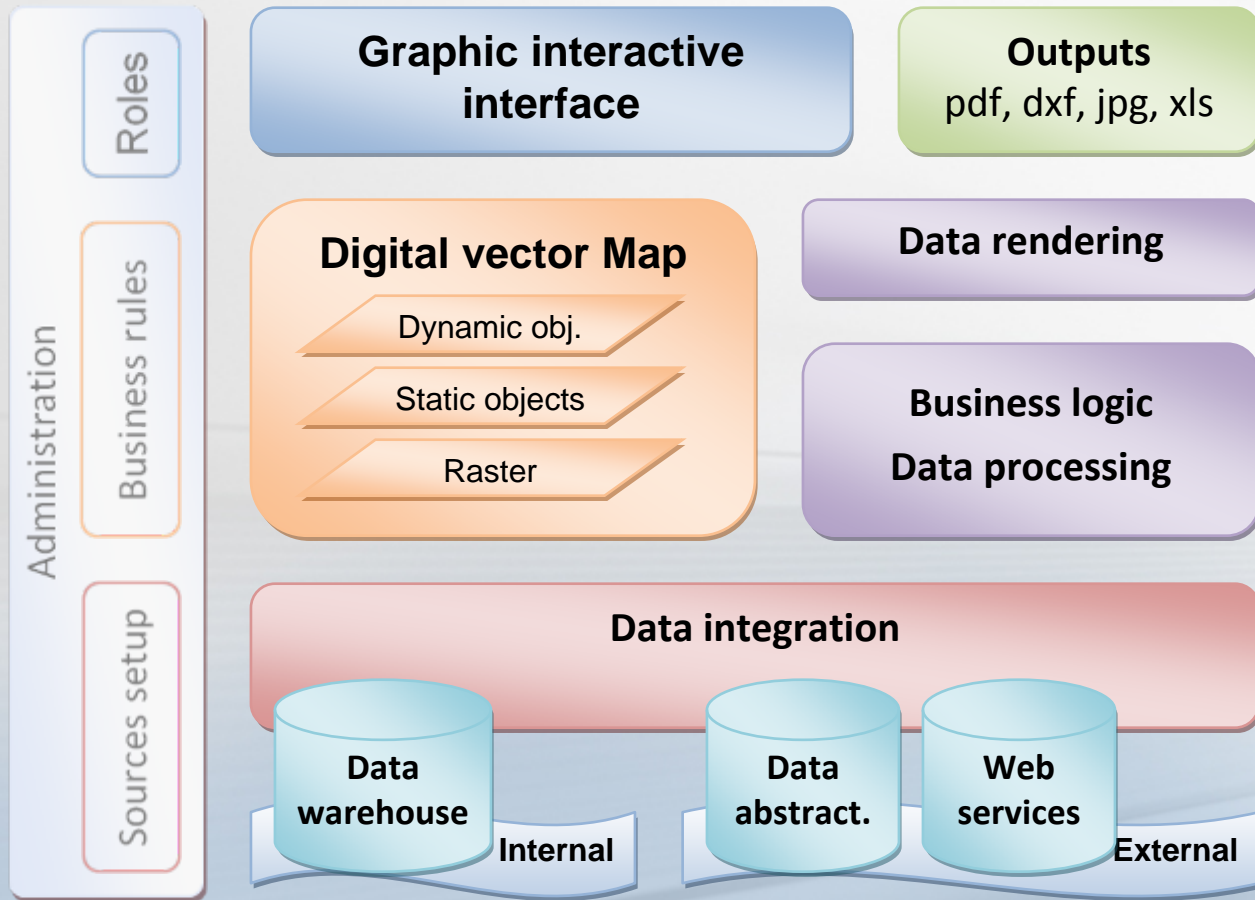
Key advantages

- **Adaptive connectors for data sources**
- **Built in and custom business rules and reports**
- **Graphic data rendering in web GIS interface**

Enables:

- **Management team collaboration and strategy development**
- **Valuable usage of information by integration**
- **Standardization and communication**
- **Data availability (including internet publishing)**
- **Evaluating, monitoring, predicting**

Architecture



Data sources

- **Distributed databases / software applications**
 - Subsidiaries
 - Administrative related institutions (municipalities, towns, ...)
 - Agencies (social, environmental, statistical, ...)
- **Central SIGMA database**
 - Data Warehouse
 - Reference nomenclatures (standardization)
 - GIS objects, static and dynamic
- **Interfaces**
 - Applications, web services, SaaS concept
 - Actors, data collecting

Data processing

- **Availability**
 - Online (critical or high dynamic data)
 - Preprocessed data (statistical or computed)
(monthly, daily, hourly, ...)
- **Business rules, analyzing and predicting**
 - Preconfigured data structures and rules
 - Custom: relational and object oriented model
 - Linking data, objects and GIS elements
- **Reporting**
 - Standard built in reports
 - Report configurator for dynamic data composure
 - Tables, graphic charts and GIS outputs

Geographical Interface

- Digital geo-referenced map

Masa impozabilă | Persoane | Venituri | Cheltuieli | Compuse | Interne

Configurare | Listări

Buget - subunități

Subunități

Liceul 8

Total | Tr.II | Exec. | ReTot. | Trim.II

Cod	Denumire	Trm.II
	CHELTUIELI TOTAL (01+70-79)	1.700,99
01	A. CHELTUIELILE CURENTE (01+10+30+3)	1.696,99
10	TITLUL I CHELTUIELI DE PERSONAL	1.167,00
20	TITLUL II BUNURI SI SERVICII	508,99
30	TITLUL III DOBANZI	0,00
40	TITLUL IV SUBVENTII	0,00
50	TITLUL V FONDURI DE REZERVA	0,00
51	TITLUL VI TRANSFERURI INTRE UNITATI	0,00
55	TITLUL VII ALTE TRANSFERURI	0,00
57	TITLUL VIII ASISTENTA SOCIALA	0,00
59	TITLUL IX ALTE CHELTUIELI	21,00
70	CHELTUIELI DE CAPITAL (70-71+72)	3,99
71	TITLUL X ACTIVE NEFINANCIARE	3,99
72	TITLUL XI ACTIVE FINANCIARE	0,00
79	OPERATIUNI FINANCIARE (79-80+81)	0,00
80	TITLUL XII ÎMPRUMUTURI	0,00
81	TITLUL XIII RAMBURSARI DE CREDITE	0,00
90	TITLUL XIV REZERVE, EXCEDENT/DEFICI	0,00

Invătământ
Nr. copii înscriși 1425

Geographical Interface (2)

- **Basic elements as objects**
(infrastructure, cities, administrative limits, rivers, ...)
- **Raster: aerial photo, scans, plans, pictures**
- **Overlap dynamic standard and custom elements**
(objectives, networks, zones, buildings, bridges, ...)
- **Organized in layers and themes**
- **Interactions for navigation, zoom, search, data access**
- **Cartograms composure**

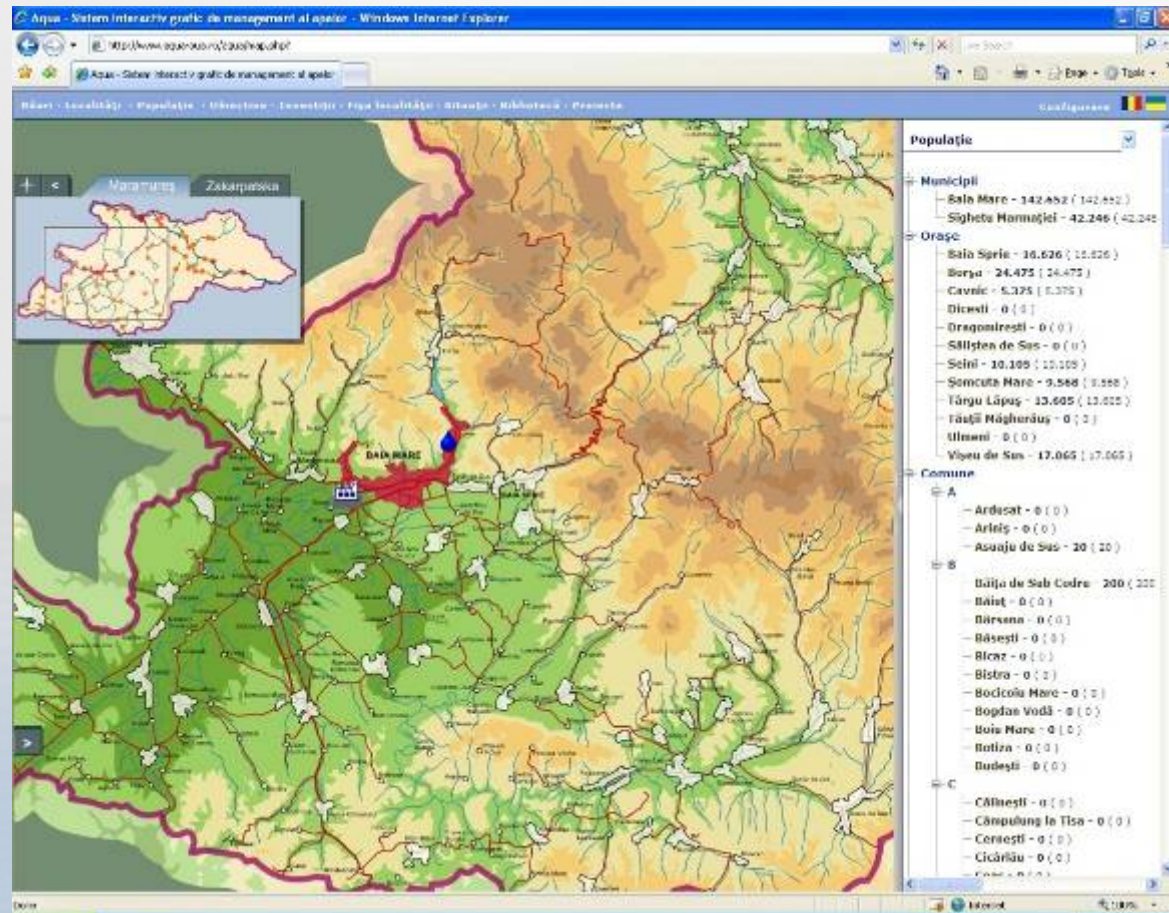
SECTIONS

1. **Public Administration**
2. **Economical / financial**
3. **Social / demographical**
4. **Strategic management**

1. Public Administration section

Manage data about

- Cities, towns, villages
- Boundaries, areas
- Infrastructure
- Rivers and lakes



2. Economical / financial section

- Budget
(individual, consolidated)
- Investments
- Assets
- Economy
(type and dimension)
- Evolution
(daily, monthly, yearly)

SIGMA 2 - Sistem interactiv grafic de management in administratie - Microsoft Internet Explorer

http://www.sigma2.ro/ol.php?menu=10

Localitati - Populatie - Inimiri - Obiective - Localitati - Investitii - Rezervatii - Recautii - Buget Subunitati - Buget Primarii - Buget Judet

Buget Judet

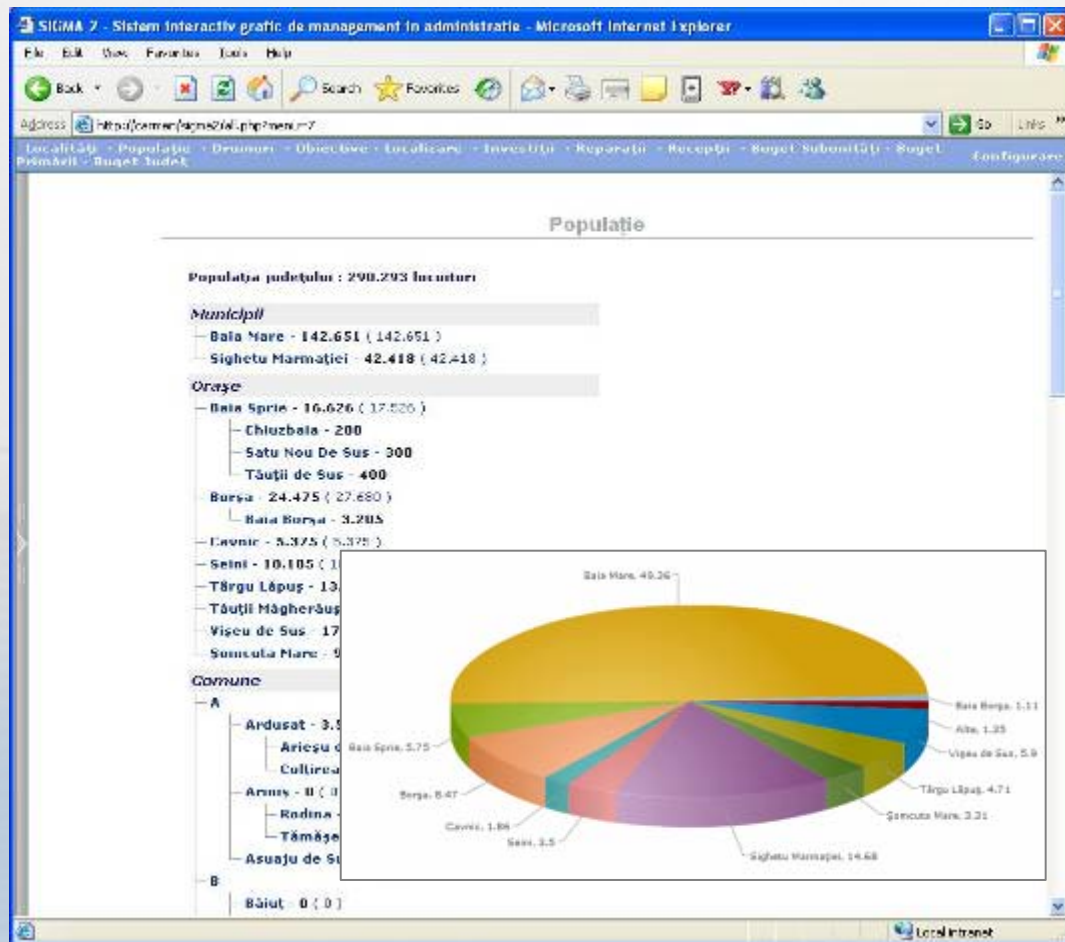
0003 A.. VENITURI FISCALE (rd.5+rd.20)

Nr.	Cod	Denumire	Total	Trim. II	Executie	%
1	0001	VENITURI - TOTAL (rd.3+50+60+62+69+8 ...)	208.676,62	133.328,04	48.716,24	36,53%
2	4802	VENITURI PROPRII-TOTAL (rd.3+48+57 ...)	102.786,45	62.427,64	29.191,83	46,76%
3	0002	I. VENITURI CURENTE (rd.4+rd.20)	47.398,64	29.538,44	14.497,90	49,08%
4	0003	A. VENITURI FISCALE (rd.5+rd.20)	39.206,00	25.001,92	12.880,30	51,51%
5	0004	A1. IMPOZITE DIRECTE (rd.6+7+12+13+ ...)	29.893,31	18.736,16	10.035,28	53,56%
6	0102	IMPOZITUL PE PROFIT	300,00	150,00	106,10	70,73%
7	0302	IMPOZITE SI TAXE DE LA POPULATIE (r ...)	11.716,74	7.439,37	4.013,48	53,04%
8	030202	Impozitul pe cladiri de la persoane ...	7.910,85	5.056,43	2.671,61	52,83%
9	030203	Taxe asupra mijloacelor de transport ...	1.591,07	1.042,04	606,45	58,19%
10	030209	Impozitul pe terenuri de la persoane ...	1.750,29	1.008,14	570,19	56,25%
11	030230	Alte impozite si taxe de la populat ...	464,53	332,76	165,24	49,65%
12	0402	TAXA PE TEREN	233,59	105,30	19,14	18,17%
13	0502	IMPOZITUL PE CLADIRI SI TERENURI DE ...	12.815,72	7.659,35	4.340,62	56,67%
14	050201	Impozitul pe cladiri de la persoane ...	11.180,86	6.657,94	3.803,05	58,63%
15	050202	Impozitul pe terenuri de la persoan ...	1.634,86	1.001,44	436,97	43,63%
16	0602	ALTE IMPOZITE DIRECTE (rd.17 la rd. ...)	4.826,20	3.383,14	1.555,93	45,99%

Localitate	Total	Trim. II	Executie	%
Bala Mare	26.575,00	19.544,42	11.460,48	66,80%
Sighetu Marmatiei	4.332,00	2.311,00	0,00	11,04%
Baia Sprie	424,00	300,00	0,00	1,08%
Bursa	0,00	0,00	0,00	0,00%
Caynic	6.975,00	2.639,50	1.419,82	17,00%
Seini	0,00	0,00	0,00	0,00%
Targu Lapus	0,00	0,00	0,00	0,00%
Tautii Magheraus	0,00	0,00	0,00	0,00%
Viseu de Sus	0,00	0,00	0,00	0,00%
Somcuta Mare	0,00	0,00	0,00	0,00%
Ardusat	0,00	0,00	0,00	0,00%
Arinis	0,00	0,00	0,00	0,00%
Asaia de Sas	0,00	0,00	0,00	0,00%
Baiut	496,00	207,00	0,00	1,26%
Baita de Sub Codru	0,00	0,00	0,00	0,00%
Barsana	0,00	0,00	0,00	0,00%
Basessti	0,00	0,00	0,00	0,00%
Bicaz	0,00	0,00	0,00	0,00%
Bistrita	0,00	0,00	0,00	0,00%
Bocicsea Mare	0,00	0,00	0,00	0,00%
Bogdan Vodă	0,00	0,00	0,00	0,00%
Buiu Mare	0,00	0,00	0,00	0,00%
Butira	0,00	0,00	0,00	0,00%
Budesti	0,00	0,00	0,00	0,00%
Calinesti	0,00	0,00	0,00	0,00%
Campulung la Tisa	0,00	0,00	0,00	0,00%

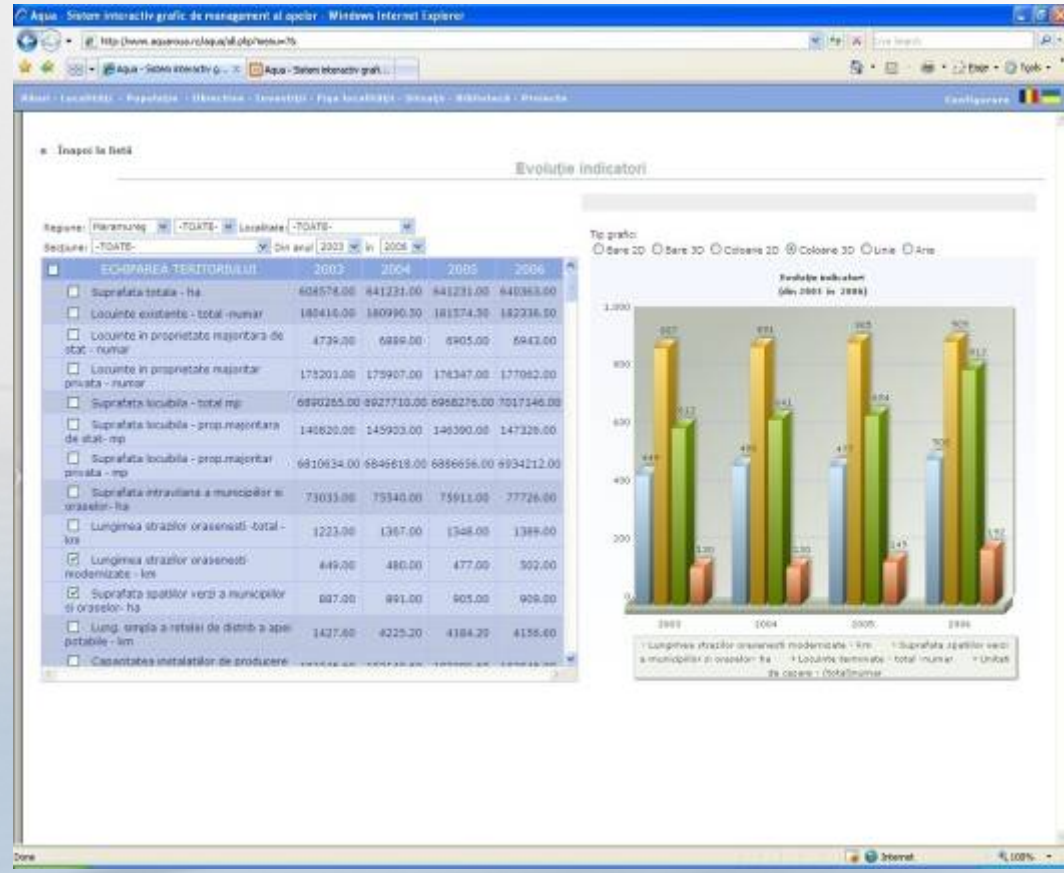
3. Social / demographical section

- Demography and segmentation
- Dynamics and predictions
- Social services (types, beneficiaries, distribution, values)
- Employment / unemployment



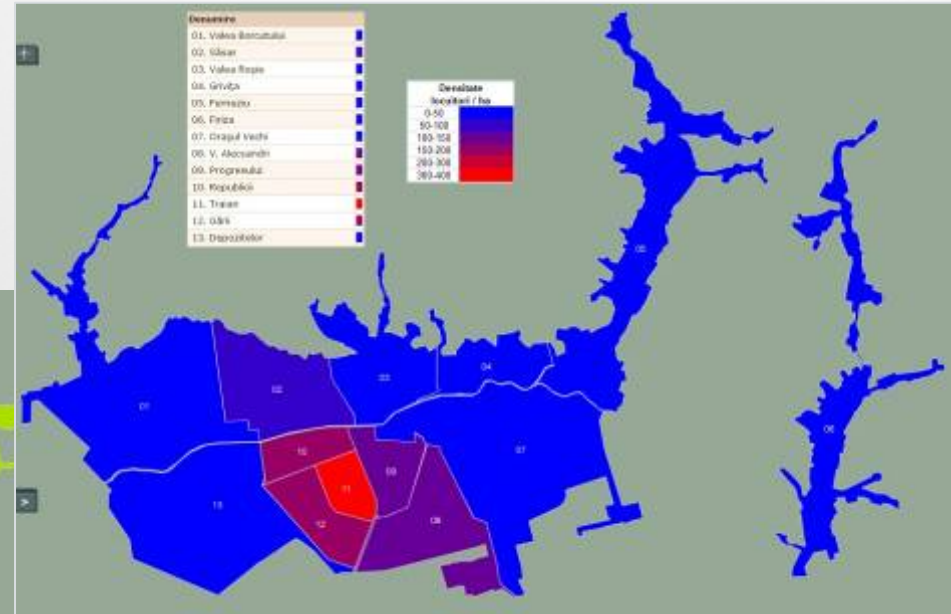
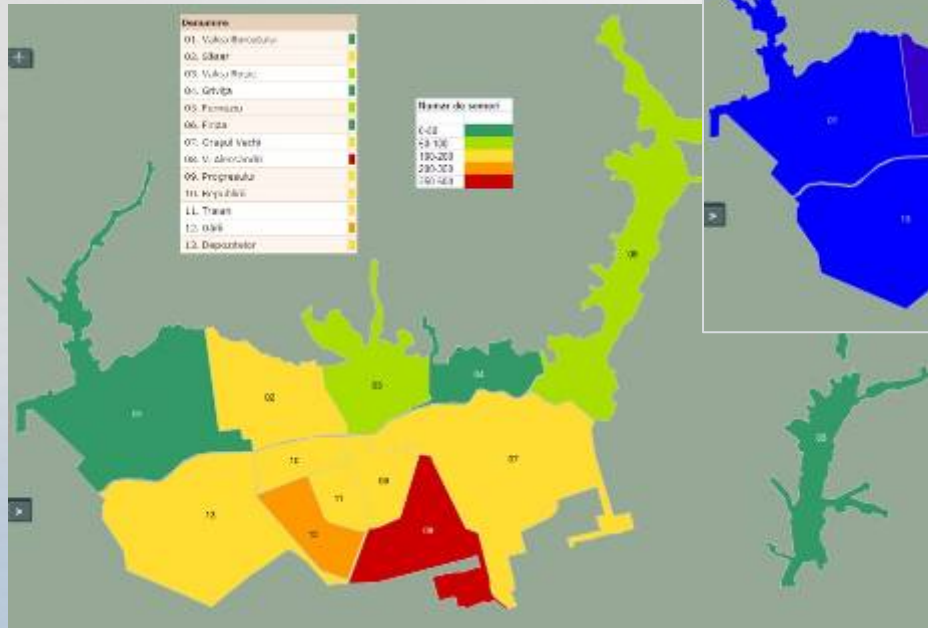
4. Strategic section

- City / area profiling
- Data combining (modeling)
- Analyzing and reporting tools
- Portfolio and Project management
- Scenarios design and evaluation (GIS based)

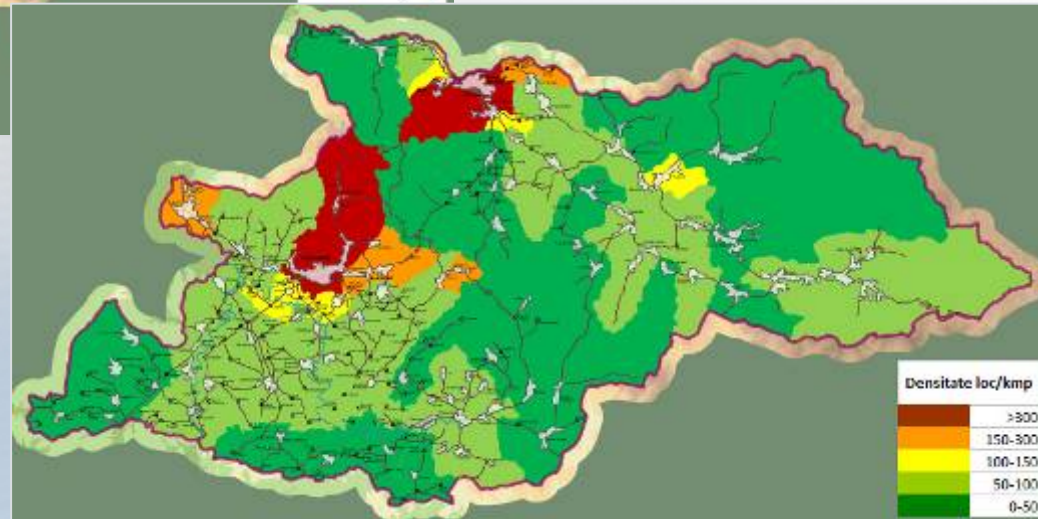
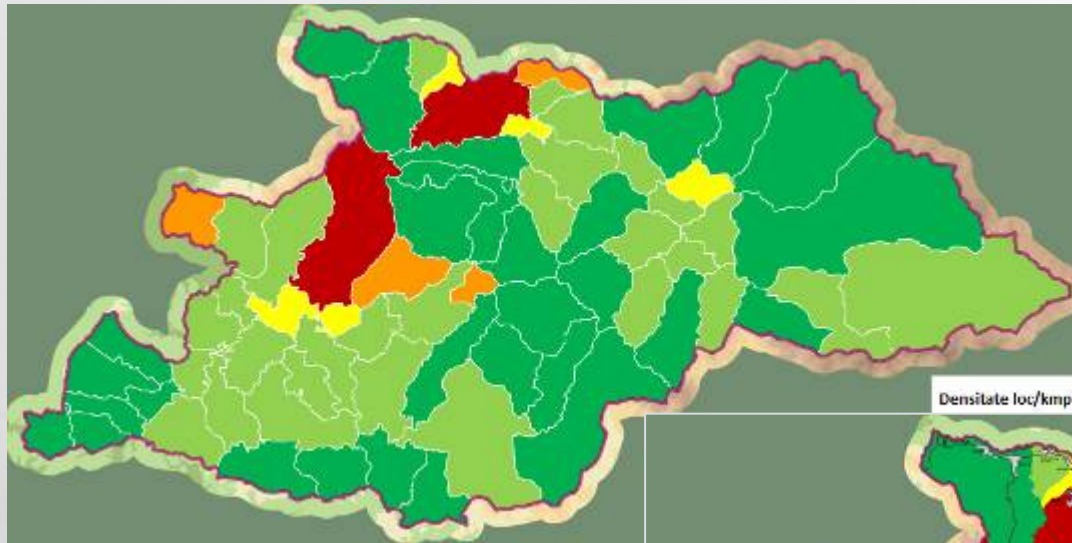


4. Strategic section (2)

- City / area monitoring
- Data rendering: cartograms



Cartograms (2)



Project Management

- **Classic P.M. oriented to Public Administration needs:**
 - Defining the project, targets, objectives, deliverables
 - Organizing, planning, leading, controlling, reporting
 - Budgeting (divided on sources), cash-flow
 - Acquisitions and contracts
- **Portfolio Management – projects in programs**
 - Aligning, prioritizing and timing related projects
 - Cumulate and distribute resources and budget – capital budget
 - Document management

SIGMA References

Oradea **ian.2008 – iul.2008**

Baia Mare **apr.2008 – oct.2008**

Aqua Roua – Maramureş / Zakarpathia
oct.2008 – febr.2009

Tourism – Maramureş / Zakarpathia / Ivano Frankivsk
apr.2008 – apr.2009



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