

Publicspending.gr: interconnecting & visualizing Greek public expenditure following Linked Open Data directives



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Outline

- ① why Linked Open Data (LOD)
- ② LOD in Greece
- ③ issues
- ④ WHERE MY MONEY GOES App
- ⑤ local spending in EU demo
- ⑥ to the future

Why LOD

- more & better information
- objective and processable information for economic/political “dialogue”
- to promote competition
- to decrease cost
- to judge the efficiency of policy mixtures
- to enable participation



LOD in Greece: current status

- in its infancy - **NO** Apps yet
- 2-3 stars
- Open not Linked
- very limited public awareness



LOD in Greece: why it is important

- quality of information during economic crisis
- transparency & efficiency in funding development



Issues



- how can we initiate the virtuous cycle of creation?

demonstrate LOD's added value

- how to get the most out of data?

local & global interconnections

In few words,
Apps, Apps, Apps.....



WHERE MY MONEY GOES in Greece

publicspending.gr

- the first LOD App in Greece
- daily updates
- open spending linked data, endpoint & visualizations



WHERE MY MONEY GOES in Greece

publicspending.gr

- Input
 1. “Diavgeia” (all public spending decisions online daily)
 - API, average data quality, rich information
 - Payer, payee (amount, VAT number, name)
 - CPA 2008: Classification of products by Activity
 - CPV 2008: Common Procurement Vocabulary
 - Original decision text in pdf
- 2. TAXIS (official Tax Information System)
 - VAT number validation and profile request

Checklist

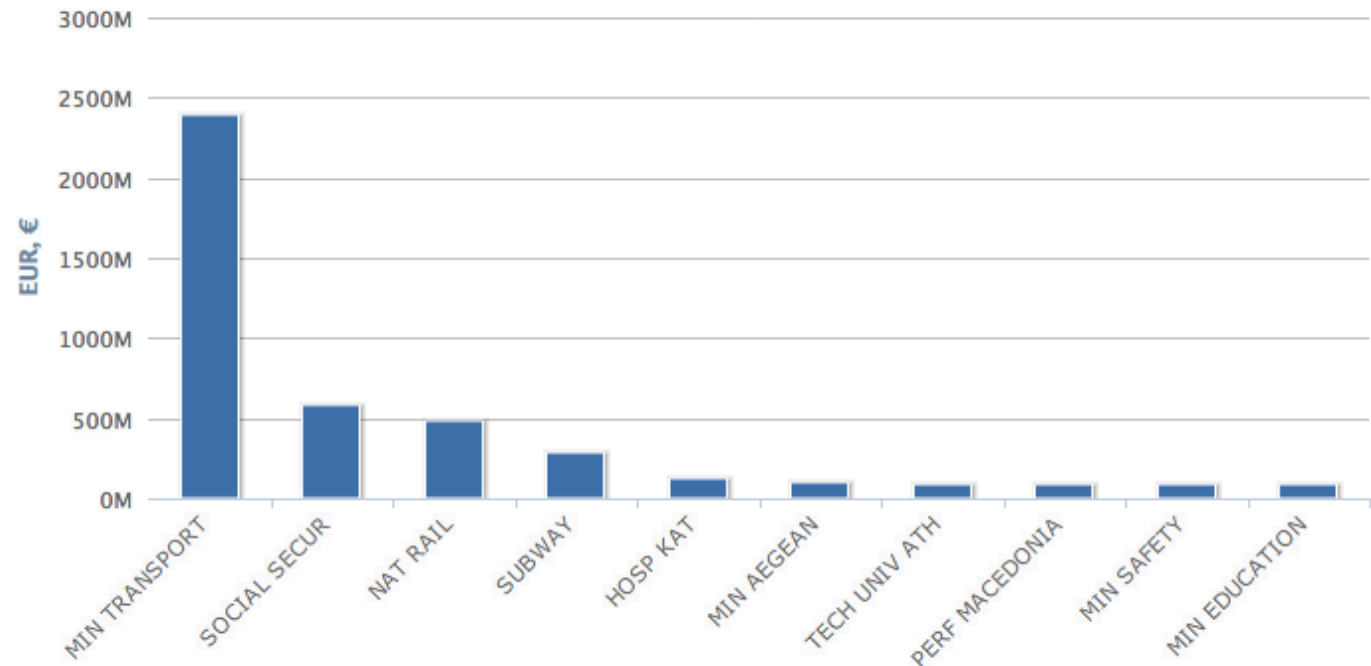
- ① Ontology - *enriching with core vocab.*
- ② Basic visualizations
- ③ SPARQL endpoint - *thedatahub*
- ④ Interconnections
 - Product classifications
 - *Open Corporates*
 - *Greek LOD (e-proc, geodata, dbpedia)*
 - *EU and US (CPV -> NAICS)*
- ⑤ Demos & services
- ⑥ Public awareness - *working with the media , hackathons, courses, theses*

Public organizations with the highest expenditure 2010-12

This chart visualises the top 10 public organizations with the highest expenditure in a specific time frame (**day**, **week**, **month**, **year**). You can click on the diagram for the contractor's full name and full amount.

[<< Charts](#)

Top 10 public organizations according to their total expenditure
Overall

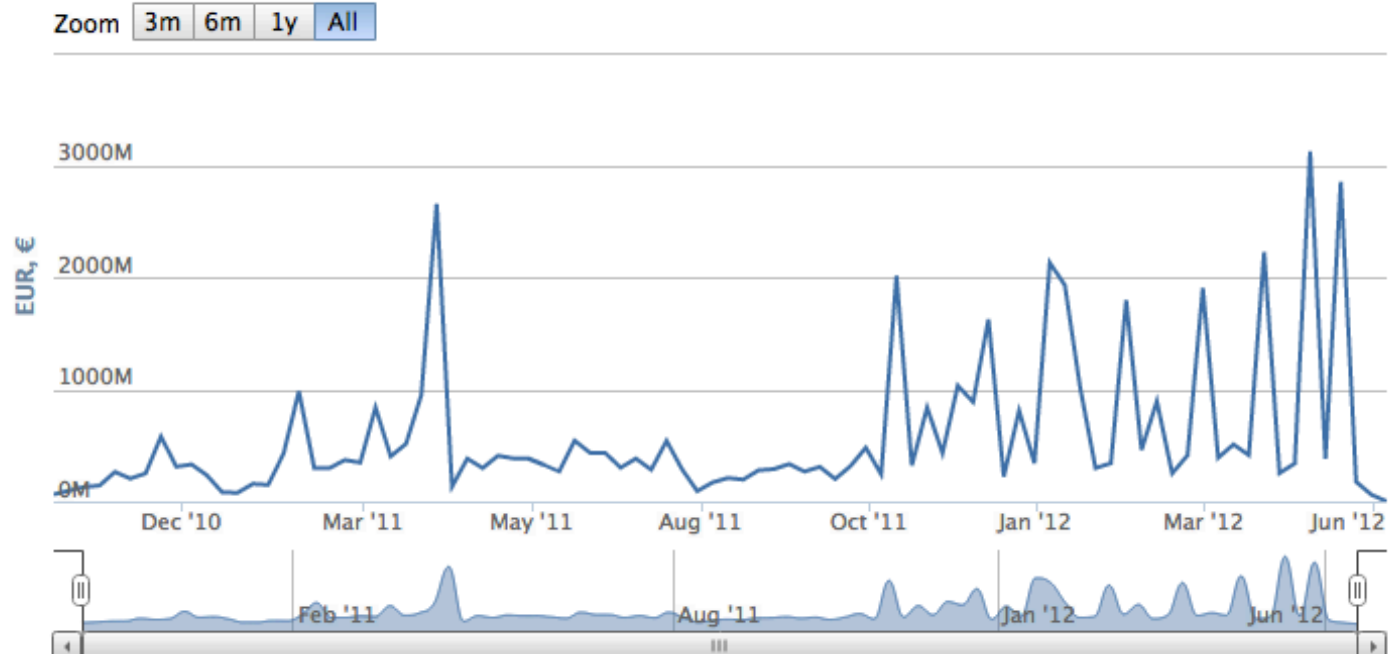


Evolution of public expenditure in Greece (2010-12)

This chart visualises the total public expenditure in Greece over time (weekly).

[<< Charts](#)

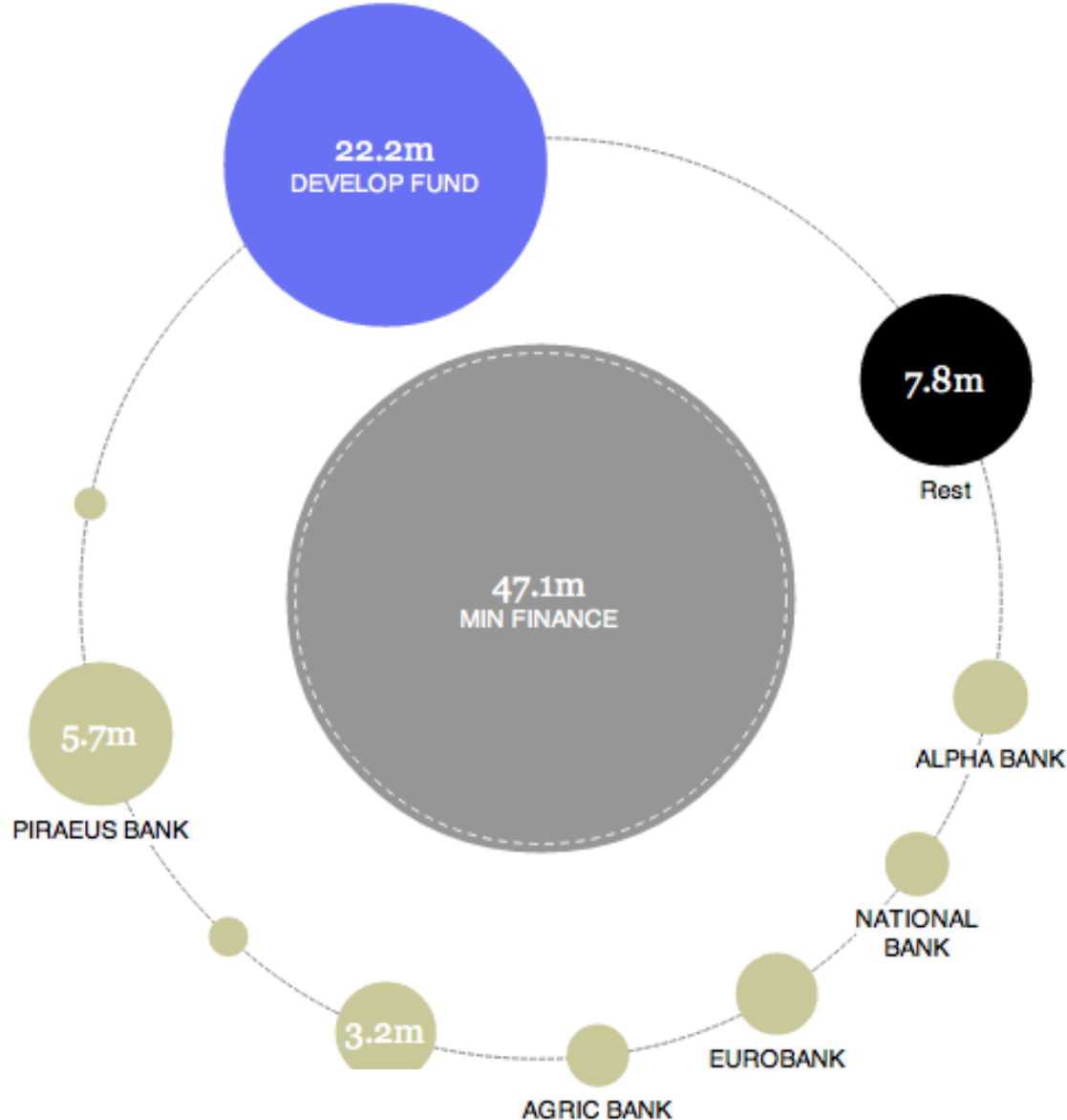
Total public expenditure on a weekly basis
01/10/2010 - 18/06/2012



Which are the top-9 payees for MINISTRY OF FINANCE and the amount the rest payees are shared, from the beginning of "Diavgeia" project.

The colours in the bubbles are not arbitrary chosen, but they represent the highest expenditure category for each distinct payer-payee pair (according to the European CPV). Put your mouse over the bubble and you will see the full payee name and the respective amount of expenditure.

<< Charts



Color Cpv category name

- Business services: law, marketing, consulting, recruitment, printing and security
- Architectural, construction, engineering and inspection services
- Administration, defence and social security services

profiles for public organizations and awardees

(under development)

WHERE MY MONEY GOES in Greece

[home](#) [about](#) [charts](#) [data](#) [publicity](#)

VODAFONE TELECOMMUNICATIONS GREECE

Overall amount (EUR, €)

3063551.27

Count

193

Cpv category (top 4)	Amount (EUR, €)	Percentage
Mobile telephones	243413.96	8%
Mobile-telephone services	212183.37	7%
Telecommunications equipment and supplies	210061.86	6.9%
Telecommunications services	1909951.51	62%

Top payers	Amount (EUR, €)	Percentage
ATTICA SUBWAY SA	65449.66	2.1%
INSTITUTE OF SOCIAL SECURITY	1811402.55	59%
MINISTRY OF FOREIGN AFFAIRS	59573.45	1.9%
NATIONAL POST	260607.5	8.5%

Date	Payer	Amount (EUR, €)	Cpv category
2011-06-06	NATIONAL POST	48003.77	Phone cards
2012-03-07	INSTITUTE OF SOCIAL SECURITY	1811402.55	Telecommunications services
2012-05-09	NATIONAL POST	159000	Telecommunications equipment and supplies
2012-05-09	NATIONAL POST	48185.25	Telecommunications equipment and supplies

WHERE MY MONEY GOES

local spending in EU level demo

- ① Litchfield district
 - NUTS LAU1 region
 - population $\approx 100k$

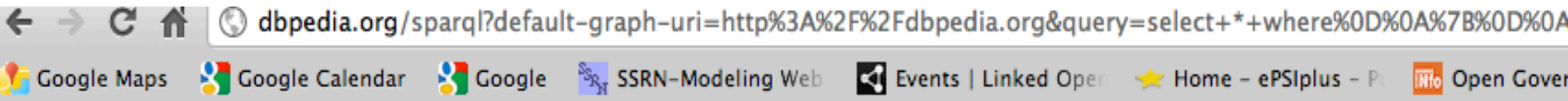


- ② Find places with similar characteristics in Greece (Dbpedia)



Dbpedia query <http://dbpedia.org/sparql>

```
select * where  
{ ?mun dbpprop:popMunicipality ?a .  
FILTER(?a>90000 && ?a <120000)}
```



Comparative statistics

	Total Sum	Count	Average spending per decision	Payees	Average spending per Payee
Lichfield	€66,059,435	25.782	€2,562.24	697	€94,776
Kalithea	€3,806,300	427	€8,914.05	204	€18,658

public spending

SPARQL Query about Kalithea in publicspending.gr and in the Litchfield endpoint

- not compatible product/service classifications (ontology alignment needed)
- Litchfield decisions: >500 £
- Kalithea decisions: no limitations

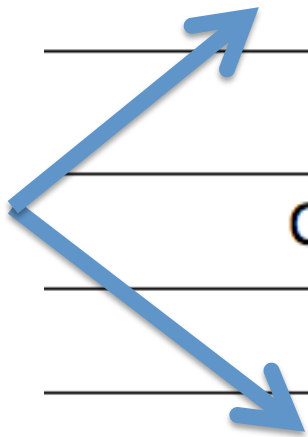
public spending: results

Litchfield

Subjective	Count	Sum
http://spending.lichfielddc.gov.uk/subjective/vehicles-hire	785	1,434,842
....
http://spending.lichfielddc.gov.uk/subjective/premises-repairs-main	244	234,643

Kalitheia

Cultural event organization services	54	80,099
...
Repair and maintenance of plant	15	20,581



public spending: comparisons

- Litchfield repair expenses = **0.44%**
- Kalithea repair expenses = **0.54%**
- Can you think of others?

WHERE MY MONEY GOES

interlinking business in global scale

- building a Greek business repository
(ongoing)
- examining global interconnections
(e.g. Open Corporates, CPA->NAICS)

Open Corporates <---> publicspending.gr

OC--->PS

Information about international businesses involved in Greek spending (e.g. Vodafone, Siemens)

OC<---PS

Information about Greek companies

some last thoughts

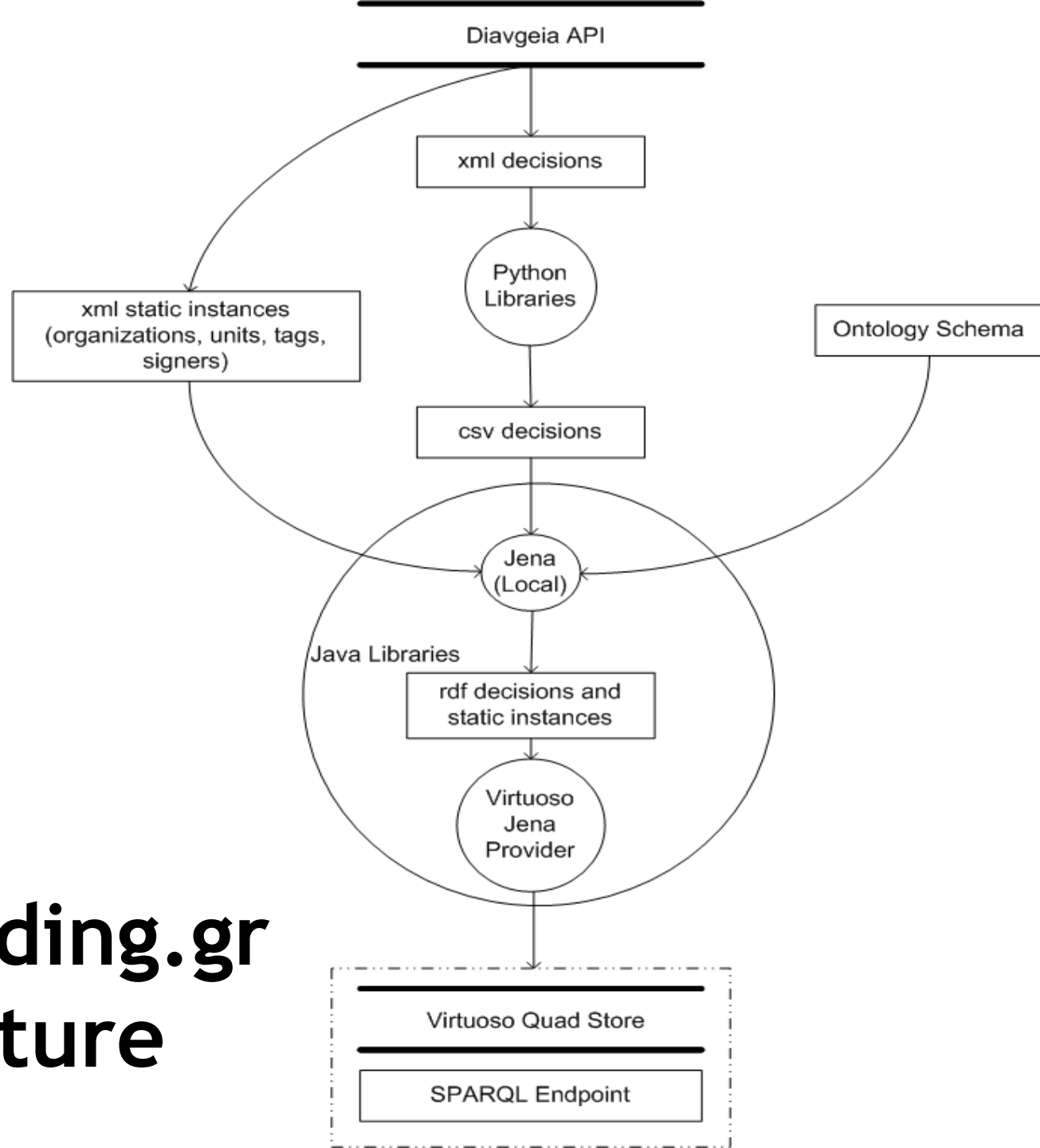
- *first App on the Greek LOD*
- *try to initiate the virtuous cycle of creation*
- *co-operations & interconnections are in the top of our agenda*
- *get people to be involved*

?



appendix

publicspending.gr architecture



Ontology

- build on the approach of the UK payment ontology and Core Bus. Voc.
- ***CPV, CPA***
- ***WESO PSC ontology, OC, data cube, Organization ontology, ...***

publicspending.gr ontology

