



# ARACHNE PROJECT

**Risk scoring tool**

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# Agenda

- **Presentation of the ARACHNE project**
- **Risk indicators and alerts**
- **Main functionalities**
- **Set-up and data requests**
- **Demo of Arachne tool**
- **State of play and next steps**

# Presentation of the ARACHNE project

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Project ARACHNE aims at providing the MS authorities involved in management of the Structural Funds with an **operational tool** to **identify** their **most risky projects**.

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# Presentation of the ARACHNE project

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## Objectives

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- Support the Management and Control Systems of the OPs, to **lower the error rate** and strengthen **fraud prevention and detection**
- Facilitate the **continuous monitoring / overview** of the internal and external data regarding **projects, beneficiaries and contracts/contractors**

# Presentation of the ARACHNE project

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## How ?

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- > Based on a set of **risk indicators and alerts**
- > **Customized to the nature of OP** expenditures
- > Using some key (internal) **data of the projects** **enriched** with **publicly available information** (external data)

# Presentation of the ARACHNE project

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## Benefits

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In view of limited resources and multiplicity of operations, key actors and systems,

- Promote the **use of a risk based approach in the verifications of the projects** (focus on most risky projects)
- **Complement the risk assessment** with regard to fraud alerts and irregularities
- **Identify** possible **irregular circumstances continuously** on the basis of predefined risk criteria
- Build an **overall better defense against fraud and errors**

# Risk indicators and alerts



Risk category	Description
<b>Procurement</b>	Risk indicators on the procurement process
<b>Contract management</b>	Assessment of contract management aspects of the project and comparison to the peer group
<b>Eligibility</b>	Verification of the eligibility period and existence of contractors and subcontractors
<b>Performance</b>	Assessment of the coherence of activity sector ratios with the benchmark values
<b>Concentration</b>	Cross-project and cross-operational program checks
<b>Other</b>	Basic checks on logicity and reasonability of project data
<b>Reputational and fraud alerts</b>	
	<b>Financial:</b> Overall financial performance of beneficiaries, contractors / suppliers and sub-contractors, based on financial reporting data
	<b>Relationship:</b> Existence of relationships between beneficiaries and contractors / suppliers or sub-contractors and their respective personnel
	<b>Reputation:</b> Involvement in activities (such as bankruptcies) that could possibly result in reputational damages
	<b>Sanction:</b> Identification of beneficiaries, contractors/suppliers, subcontractors or their respective personnel, blacklisted or appearing in any type of sanction list
	<b>Change:</b> Any type of changes to the company structure
	<b>Negative info:</b> Alerts of any other negative information made available through text and web mining

# Examples of risk indicators and alerts

## Procurement

Lead time between publication of the tender notice and contract signature  
Number of disqualified tender offers / Number of tender offers received

## Contract management

Contract addenda cost (total) for the project / Project cost  
Number of consortium partners

## Eligibility

Project costs outside eligibility period - before start date  
Project costs outside eligibility period - after end date

## Performance

Number of people trained / Number of people to be trained  
Project total cost / Length in km per Project (Per Type of Road)



# Examples of risk indicators and alerts

## Concentration

Beneficiaries involved in multiple Projects

Project partners involved in multiple Projects

Consortium members linked to multiple Projects

Sub-contractors linked to multiple Projects

## Other checks

EC assistance / Total Project cost

Fixed assets / Project cost

# Examples of risk indicators and alerts

## Reputation and Fraud alerts

### Financial

High or deteriorating propensity to bankruptcy

### Relationship

Links between beneficiaries/project partners and contractors/suppliers

### Reputation

Involvement of directors / shareholders with bankruptcies

Involvement of directors / shareholders from sensitive regions

### Sanction alerts

Involvement of individuals included in PEP list

Involvement of individuals / entities included in sanction lists

### Change alerts:

High rotation of directors

Activity changes

### Negative info alerts:

Keyword of interest (each Member State to provide its specific keywords).

# Main functionalities

**Internal data upload from Member States**

**External data enrichment** (Orbis, WorldCompliance, Web mining)

**Risk score calculation based on internal and external data**

**Output visualisation in dashboards**

- High risk beneficiaries / projects / contractors / contracts
- Drill-down functionalities
- Visualisation of links between entities/individuals
- Scenario analysis

**Export options**

**Case management**

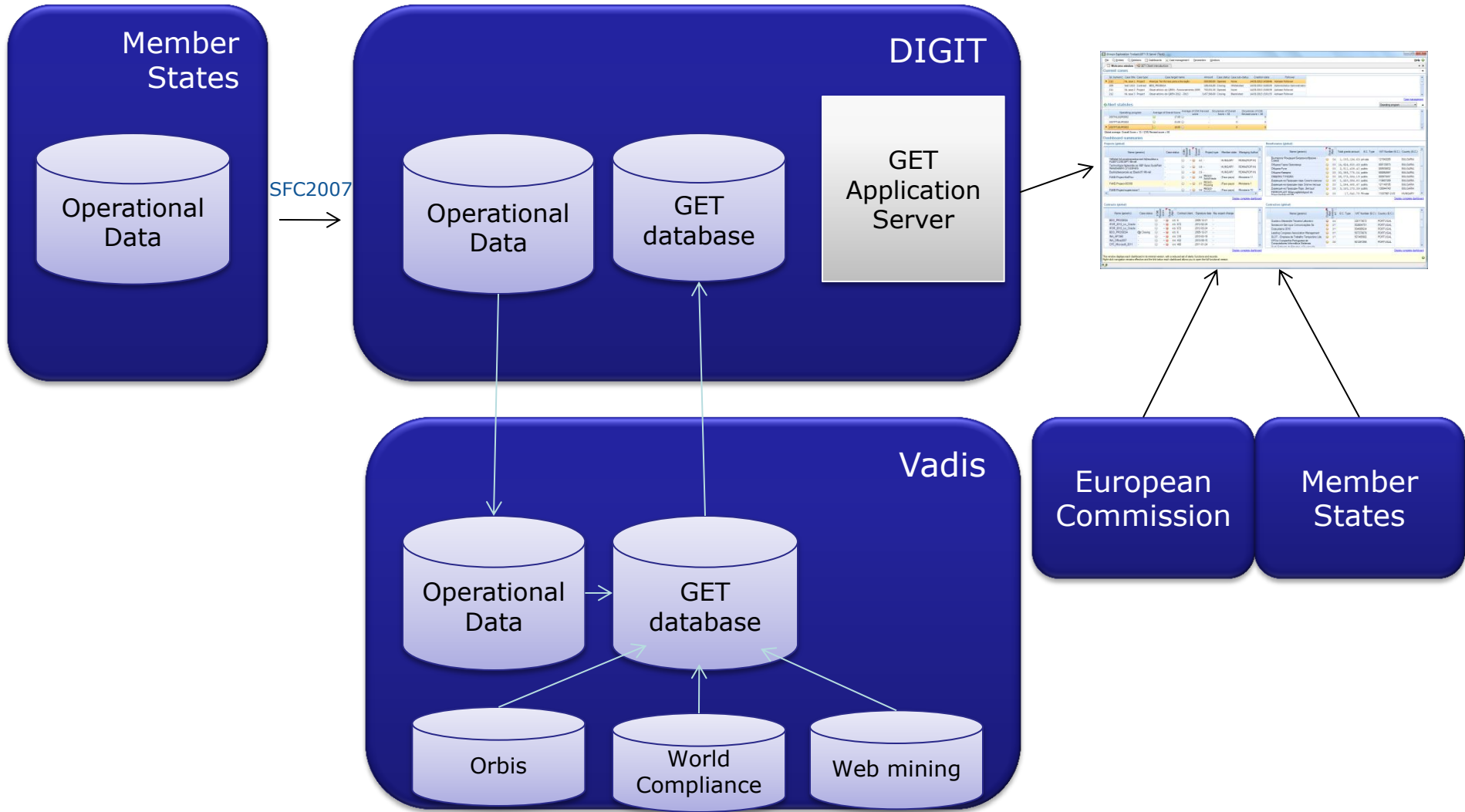
**Feedback loop**

**User management**

# Set-up and data requests



European  
Commission



# Orbis

- Orbis has information on :
  - Companies : +/- 100 million companies worldwide
    - Financial data of the company (turnover, shareholders, ...)
    - Address information
    - Related people (directors, contact people, ...)
    - Indicators like credibility and bankruptcy
  - Persons : +/- 100 million persons
    - First name, last name, Age
    - Number of affinities, number of companies and role in company
- The data is collected from publicly available information such as official annual reports or balance sheets submitted to regulatory bodies
- The level of details available in the database varies by country and company size

# World Compliance



- World Compliance collects, aggregates and centralizes :
  - PEP lists (politically exposed person)
  - Sanctions lists (EU Terrorism List, ICE List, CBI List, ...)
  - Enforcement list (narcotic & human traffickers, money launderers, fraudsters and other criminals, ...)
  - Adverse media list (company or person that have been linked to illicit activities by news sources)
- The data is received from regulatory and governmental authorities (except for adverse media list)

# Web Mining

moreover ●●●

- MoreOver collects a daily average of 1,500,000 news articles from 50,000 different sources worldwide
- Text mining techniques developed at VADIS allows to retrieve a subset of news that reference companies/persons involved in EC projects in the a context of fraud, corruption, etc.
- Pilot on 1 MS ongoing

# Information Privacy

- The information from World Compliance and Moreover are only accessible through the Arachne alert details
- It won't be possible for a user to explicitly retrieve these information for a given company/person



# Demo Arachne risk scoring tool

Groups Exploration Toolset (GET CE Server (Test))

File Entities Relations Dashboards Case management Parameters Windows Help

Welcome window GET Client introduction

### Current cases

Id. (numeric)	Case title	Case type	Case target name	Amount	Case status	Case sub-status	Creation date	Follower
210	NL case 1	Project	Alianças Territoriais para a Inovação	500,000.00	Opened	None	14/03/2013 14:59:46	Adriaan Follower
209	test 1515	Contract	BDO_PRODESA	108,416.00	Closing	Whitelisted	14/03/2013 15:00:39	Administrator Administrator
211	NL case 2	Project	Observatório do QREN - Funcionamento 2009	702,031.30	Opened	None	14/03/2013 15:00:39	Adriaan Follower
212	NL case 3	Project	Observatório do QREN 2012 - 2013	3,457,566.00	Closing	Blacklisted	14/03/2013 15:01:35	Adriaan Follower

[Case management](#)

### Alert statistics

Operating program

Operating program	Average of Overall Score	Average of (CM) Revised score	Occurrences of Overall Score > 38	Occurrences of (CM) Revised score > 38
2007NL162PO002	17.00		0	0
2007PT16UPO002	21.00		0	0
2007PT16UPO003	18.00		0	0

Global average: Overall Score = 12 / (CM) Revised score = 50

### Dashboard summaries

#### Projects (global)

Name (generic)	Case status	(CM) Revised score	Overall Score	Project type	Member state	Managing Authority
Vállalati folyamatmenedzsment fejlesztése a FLEET CONCEPT Kft-nél	-		4.0	-	HUNGARY	RDMA/ROP II
Technológiai fejlesztés az ÁBP Ápiax BudaPiert Kereskedelmi Zrt számára	-		3.9	-	HUNGARY	RDMA/ROP II
Eszközbeszerzés az Elastic91 Kft-nél	-		3.9	-	HUNGARY	RDMA/ROP II
FAKE-Project-ExpProv	-		3.8	REGIO-SolidWaste	(Faux pays)	Ministerie 11
FAKE-Project-00308	-		3.7	REGIO-Housing	(Faux pays)	Ministerie 1
FAKE-Project-supervision1	-		3.6	REGIO-SolidWaste	(Faux pays)	Ministerie 10

[Display complete dashboard](#)

#### Beneficiaries (global)

Name (generic)	Overall Alert	Total grants amount	E.C. Type	VAT Number (E.C.)	Country (E.C.)
Българска Фондация Биоразнообразие - Софрия	34	1, 035, 194.69	private	121540285	BULGARIA
Община Горна Оряховица	33	14, 624, 600.49	public	000133673	BULGARIA
Община Русе	33	2, 511, 439.40	public	000530632	BULGARIA
Община Каварна	33	30, 365, 775.04	public	000852697	BULGARIA
ОБЩИНА ТУНДЖА	33	26, 072, 584.19	public	000970457	BULGARIA
Дирекция на Природен парк Сините камъни	33	1, 220, 384.80	public	119607289	BULGARIA
Дирекция на природен парк Златни пясъци	33	1, 294, 489.47	public	121148195	BULGARIA
Дирекция на Природен Парк „Витоша“	33	3, 180, 173.39	public	130044740	BULGARIA

[Display complete dashboard](#)

#### Contracts (global)

Name (generic)	Case status	(CM) Revised score	Overall Alert	Contract ident.	Signature date	Key expert change
BDO_PRODESA	-		4.5	6	2005-12-21	-
IFDR_2012_Lic_Oracle	-		4.5	672	2012-02-24	-
IFDR_2012_Lic_Oracle	-		4.5	672	2012-02-24	-
BDO_PRODESA	Closing		4.5	6	2005-12-21	-
INA_API1360	-		4.4	318	2010-03-18	-
INA_Office2007	-		4.4	432	2010-09-15	-
CPC_Microsoft_2011	-		4.4	480	2011-01-24	-
IFDR_2011_Soft_Seg	Opened		4.4	565	2011-06-29	-

[Display complete dashboard](#)

#### Contractors (global)

Name (generic)	Overall Alert (contract of)	E.C. Type	VAT Number (E.C.)	Country (E.C.)
Gustavo Alexandre Teixeira Laboreiro	44		220173672	PORTUGAL
Sonaeecom-Serviços Comunicações Sa	37		502604751	PORTUGAL
Outsystems 2010	37		504995634	PORTUGAL
Leading Congress Association Management	37		507370678	PORTUGAL
SLOT - Empresa de Trabalho Temporário Lda	37		507485882	PORTUGAL
CPCis-Companhia Portuguesa de Computadores Informáticos Sistemas	36		501267255	PORTUGAL
Gedi Gabinete de Estudos e Divulgação Informática	36		501492542	PORTUGAL

[Display complete dashboard](#)

This window displays each dashboard in its minimal version, with a reduced set of alerts, functions and records. Right-click navigation remains effective and the link below each dashboard allows you to open the full functional version.

# State of play and next steps

- **Final prototype ready**
- **Implementation during 2013 in the MS**
  - **ESF:** ARACHNE will be proposed to all MS in 2013
  - **ERDF and Cohesion fund:** will start progressively (focus on certain type of OP's => 60 OPs in 2013)

# State of play and next steps

## Approach for each Member State

- Contact MS / Managing authorities 'in scope'
- Provide documentation and guidelines
- 'On-site' visits
- Support and feedback during realization and test phase
- Go-Live when quality has been approved by all concerned parties

# State of play and next steps

## Planning

- Phase 1 : Slovakia, Portugal, Romania and Czech Republic
  - Contact MS : before 15/05/2013
  - On Site visit : 15/05/2013 – 10/06/2013
  - Realization and test phase : 1/06/2013 – 31/07/2013
  - Operational : 31/08/2013
- Phase 2 : Bulgaria, Hungary and Poland
  - Contact MS : before 15/05/2013
  - On Site visit : 10/06/2013 – 30/06/2013
  - Realization and test phase : 1/07/2013 – 31/08/2013
  - Operational : 15/09/2013

# State of play and next steps

## Scope / selected op-id's

Country	CCI	OP name	Fund	EC Investement
SK	2007SK161PO002	OP Environment	ERDF	€ 1.820.000.000
SK	2007SK161PO004	OP Transport	ERDF	€ 3.206.904.595
SK	2007SK161PO003	Regional Operational Programme	ERDF	€ 1.554.503.927
SK	2007SK161UPO001	OP Research and Development	ERDF	€ 1.209.415.373
SK	2007SK161PO006	OP Competitiveness and Economic Growth	ERDF	€ 777.000.000
SK	2007SK05UPO001	Education	ESF	€ 540.000.000
SK	2007SK05UPO002	Employment and Social inclusion	ESF	€ 923.000.000
PT	2007PT161PO001	PO Factores de Competitividade	ERDF	€ 3.103.789.011
PT	2007PT161PO002	PO Regional do Norte 2007-2013	ERDF	€ 2.711.645.133
PT	2007PT161PO003	PO Regional Centro	ERDF	€ 1.701.633.124
PT	2007PT161PO004	PO Regional do Alentejo 2007-2013	ERDF	€ 868.933.978
PT	2007PT161UPO001	PO VALORIZAÇÃO DO TERRITÓRIO 2007-2013	ERDF	€ 4.658.544.223
PT	2007PT051PO001	PRO-EMPREGO - PO para o Emprego (RAA)	ESF	€ 190.000.000
PT	2007PT052PO001	Valorização do Potencial Humano e Coesão Social da RAMadeira	ESF	€ 135.000.000
PT	2007PT051UPO001	Potencial Humano 2007-2013	ESF	€ 6.272.000.000
PT	2007PT051UPO002	Assistência Técnica FSE	ESF	€ 73.000.000

# State of play and next steps

## Scope / selected op-id's

Country	CCI	OP name	Fund	EC Investement
RO	2007RO161PO001	Regional Operational Programme	ERDF	€ 3.726.021.762
RO	2007RO161PO004	Sectoral Operational Programme Environment	ERDF	€ 4.512.470.138
RO	2007RO161PO002	Sectoral Operational Programme Increase of Economic Competitiveness	ERDF	€ 2.554.222.109
RO	2007RO161PO003	Sectoral Operational Programme Transport	ERDF	€ 4.565.937.295
RO	2007RO051PO001	Programul Operațional Sectorial Dezvoltarea Resurselor Umane	ESF	€ 3.476.000.000
RO	2007RO051PO002	Programul Operațional Dezvoltarea Capacitatii Administrative	ESF	€ 208.000.000
CZ	2007CZ161PO004	OP Podnikání a inovace	ERDF	€ 3.041.312.546
CZ	2007CZ162PO001	OP Praha Konkurenceschopnost	ERDF	€ 234.936.005
CZ	2007CZ161PO012	OP Výzkum a vývoj pro inovace	ERDF	€ 2.070.680.884
CZ	2007CZ052PO001	Praha Adaptabilita	ESF	€ 113.000.000
CZ	2007CZ05UPO001	Lidské zdroje a zaměstnanost	ESF	€ 1.858.000.000
CZ	2007CZ05UPO002	Vzdělávání pro konkurenceschopnost	ESF	€ 1.779.000.000

# State of play and next steps

## Scope / selected op-id's

Country	CCI	OP name	Fund	EC Investement
BG	2007BG161PO005	Operational Programme Environment	ERDF	€ 1.466.425.481
BG	2007BG161PO004	Operational Programme Transport	ERDF	€ 1.624.479.623
BG	2007BG161PO001	Operational Programme Regional Development	ERDF	€ 1.378.083.545
BG	2007BG161PO003	Operational Programme Development of the Competitiveness of the Bulgarian Economy	ERDF	€ 987.883.219
BG	2007BG051PO001	Operational Programme Human Resources Development	ESF	€ 1.032.000.000
HU	2007HU161PO001	Operational Programme for Economic Competitiveness (development)	ERDF	€ 2.839.044.884
HU	2007HU161PO008	Operational Programme for Social Infrastructure	ERDF	€ 178.202.172
HU	2007HU161PO002	Operational Programme for Environment and Energy	ERDF	€ 4.178.846.341
HU	2007HU161PO007	Operational Programme for Transport	ERDF	€ 6.027.275.303
HU	2007HU05UPO001	Social Renewal	ESF	€ 3.037.000.000
HU	2007HU05UPO002	State Reform	ESF	€ 105.000.000
PL	2007PL161PO002	Program Operacyjny Infrastruktura i Srodowisko	ERDF	€ 27.913.683.774
PL	2007PL161PO001	Program Operacyjny Innowacyjna Gospodarka, 2007-2013	ERDF	€ 8.254.885.280
PL	2007PL051PO001	Program Operacyjny Kapitał Ludzki	ESF	€ 10.007.000.000



**Thank you for your attention**

**Questions?**