Big Data Monitoring for European Funds: Tuscany Case Study (IT)

Targeted data management for evidence based evaluation of Rural Development Programmes 2014-20
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Contents : Case Study SIART

Scenario: Monitoring 2007-2013 EU Agri Funds

- Strenght & Weakness (IT as core business)
- Maturity model & business scorecard
- Lesson learned

> Experience derived from implementing that Regulation shows that certain elements of the financing and monitoring mechanism need to be adjusted

BI Monitoring 2014-2020 EU Agri Funds

- IT governance & management processes
- Business Case
- Technology for BI
- Implementation, Monitoring & KPI

> Objective : Ready to answer to Evaluation & Information Needs!

Strenght & Weakness

IT as Core Business

- IT & Enterprise Governance Alignment
- All stakeholders involved in the main setting (Steering group, managing & monitoring Authority (ADG), evaluators, certification authorities, paying agency)
- Procedures for authorisation, validation and payment completely automated & integrated
- Extensive use of web services for immediate accessing to other DB sources
- Internal competencies and skills
- A large quantity of data
- Internal service level agreement
- Peaks and workload
- Urgency could lead to lack/weak analysis
- Reworks
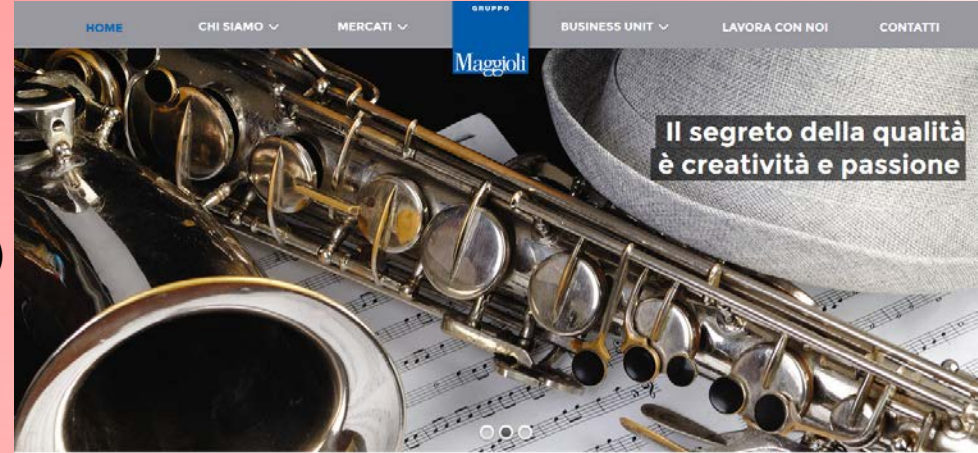- Training & skilled personnel

Maturity Model

External Assurance Provider Involvement to Evaluate IT Maturity

- Survey
- Interview to key users
- TeamWorks (Stakeholders Involvement)

Monitoring & Evaluation!

Monitoring PSR 2007-2013

I pagamenti
Monitoraggio del PSR 2007-2013

Ente `**** TUTTI ****` ▼

Misura `**** TUTTE ****` ▼

Anno `TUTTI` ▼

Visualizza importi ⦿ o conteggio istanze ○

Visualizza tutto ☑ o filtra le voci

`Ricerca`

Aggregazioni `Totale istanze per ente` ▼ `Aggregazioni`

Glossario

Programmato	Richiesto	Domande Pagamento Rinnovi
Assegnato per Anno Solare	Assegnato per competenza	Domande Pagamento Anticipo
Domande Pagamento Saldo	Domande Revocate	In Istruttoria
Riduzioni da controlli SIGC	Liquidato per Competenza	Autorizzato

Provincia di AREZZO		Annualità precedenti	2007	2008	2009	2010	2011	2012	2013	2014
	PROGRAMMATO	0,00	1.629.212,00	6.761.614,00	2.832.180,00	1.996.553,00	2.123.907,00	884.460,00	700.682,00	0,00
	RICHIESTO	0,00	0,00	22.754.120,53	20.540.695,99	20.001.412,65	21.703.650,67	18.008.196,73	25.307.051,13	0,00
	ASSEGNATO PER COMPETENZA	0,00	0,00	4.455.635,44	4.483.355,05	2.951.990,42	2.272.980,25	1.560.620,67	11.575.402,04	0,00
	ASSEGNATO PER ANNO SOLARE	0,00	0,00	1.112.023,98	4.193.269,97	3.683.668,05	3.421.868,49	2.232.636,83	899.380,26	10.318.154,69
(PSR121) Ammodernamento delle aziende	DOMANDE PAGAMENTO ANTICIPO	0,00	0,00	197.275,71	764.362,39	474.489,71	0,00	0,00	0,00	0,00
	DOMANDE PAGAMENTO SALDO	0,00	0,00	0,00	7.784.407,90	1.758.967,15	0,00	0,00	0,00	0,00
	LIQUIDATO PER COMPETENZA	0,00	0,00	197.275,71	8.462.116,66	2.191.724,88	1.953.498,15	1.422.724,07	10.524.126,01	0,00
	LIQUIDATO PER ANNO SOLARE	0,00	0,00	0,00	2.848.339,57	3.060.070,98	2.467.870,06	2.790.526,58	1.660.283,71	4.279.080,52
	AUTORIZZATO PER COMPETENZA	0,00	0,00	197.275,71	8.415.251,96	2.191.724,81	1.953.498,17	1.390.762,85	9.330.768,19	0,00
	AUTORIZZATO PER ANNO SOLARE	0,00	0,00	0,00	2.971.615,04	2.932.145,00	2.492.436,70	2.812.398,06	1.583.284,30	4.278.427,65
	PAGATO PER COMPETENZA	0,00	0,00	197.275,70	8.363.316,64	2.191.724,88	1.895.848,97	1.363.654,50	9.310.463,36	0,00
	PAGATO PER ANNO SOLARE	0,00	0,00	0,00	2.838.189,06	3.060.070,98	2.467.870,06	2.748.312,38	1.613.848,39	4.275.227,52

Business Scorecard

Lesson Learned

Objective : Answer to Evaluation Needs ?

- Structured Data

- Several type of data

- Data Dictionary

- Structured Reports

- Data Availability on Time

- Quality

- Automatic Tools

Big Data

data sets
that are so large or complex
that traditional data processing applications are inadequate to deal with them.

Challenges include:

- analysis,
- capture,
- data curation,
- search,
- sharing,
- storage,
- transfer,
- visualization,
- querying,
- updating
- information privacy

On time

plus

historical archives!

Available Big Data Types
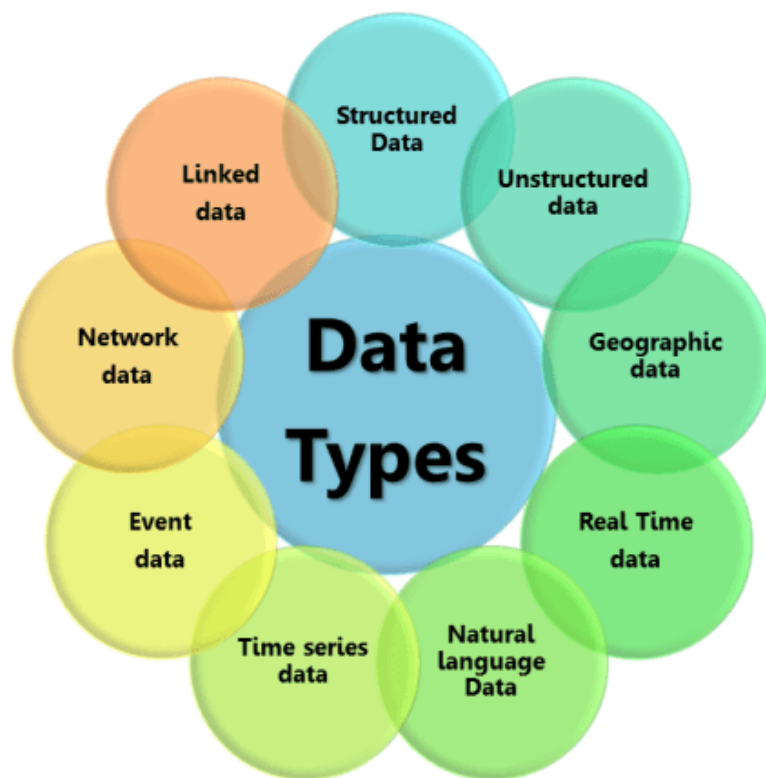
Geographic data!

Geographic data (cultivation plan) gathered since applications
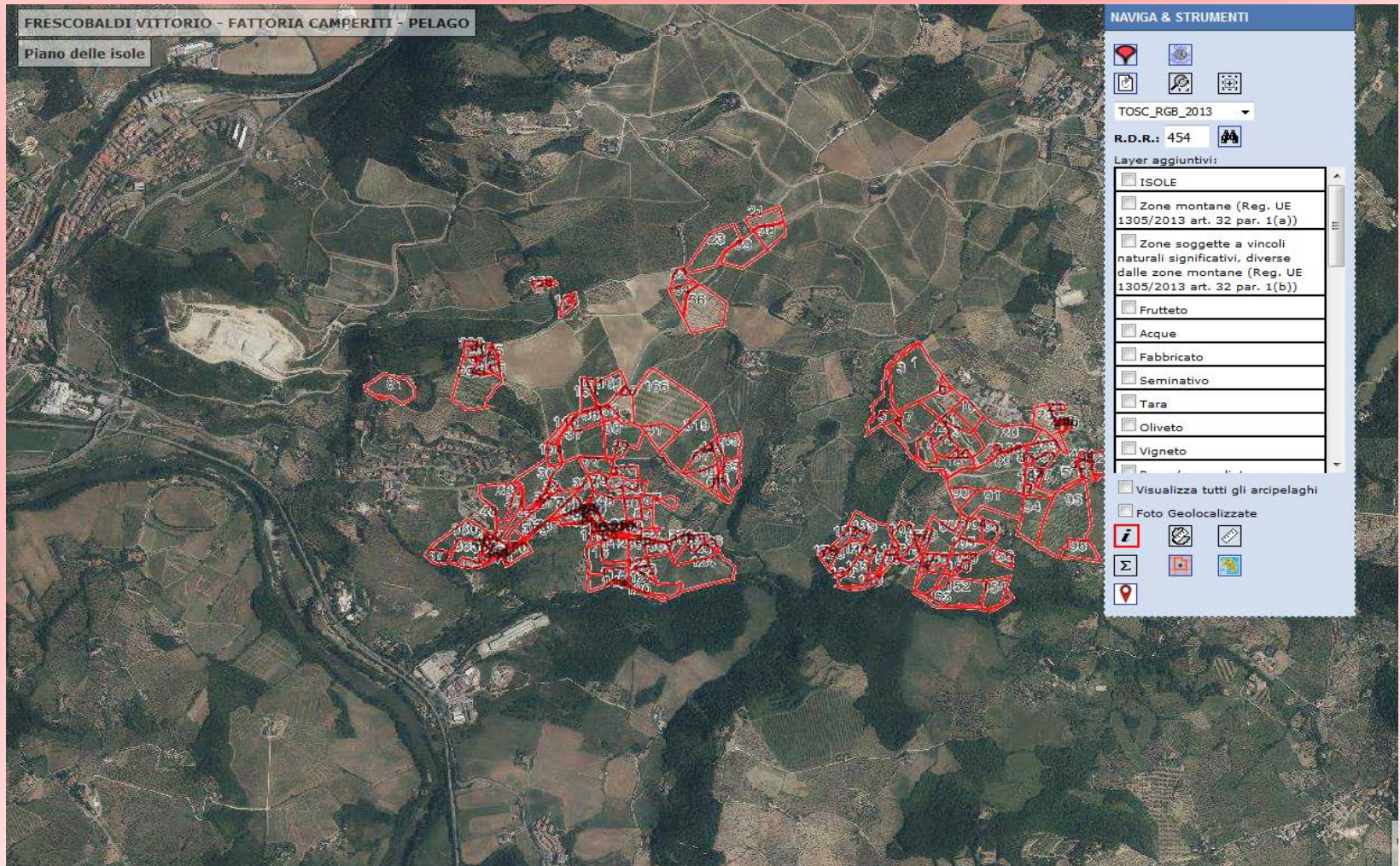
BI Developing Process

Value Governance

- VG1: Establish informed and committed leadership.
- VG2: Define and implement processes.
- VG3: Define portfolio characteristics.
- VG4: Align and integrate value management with enterprise financial planning.
- VG5: Establish effective governance monitoring.
- VG6: Continuously improve value management practices.
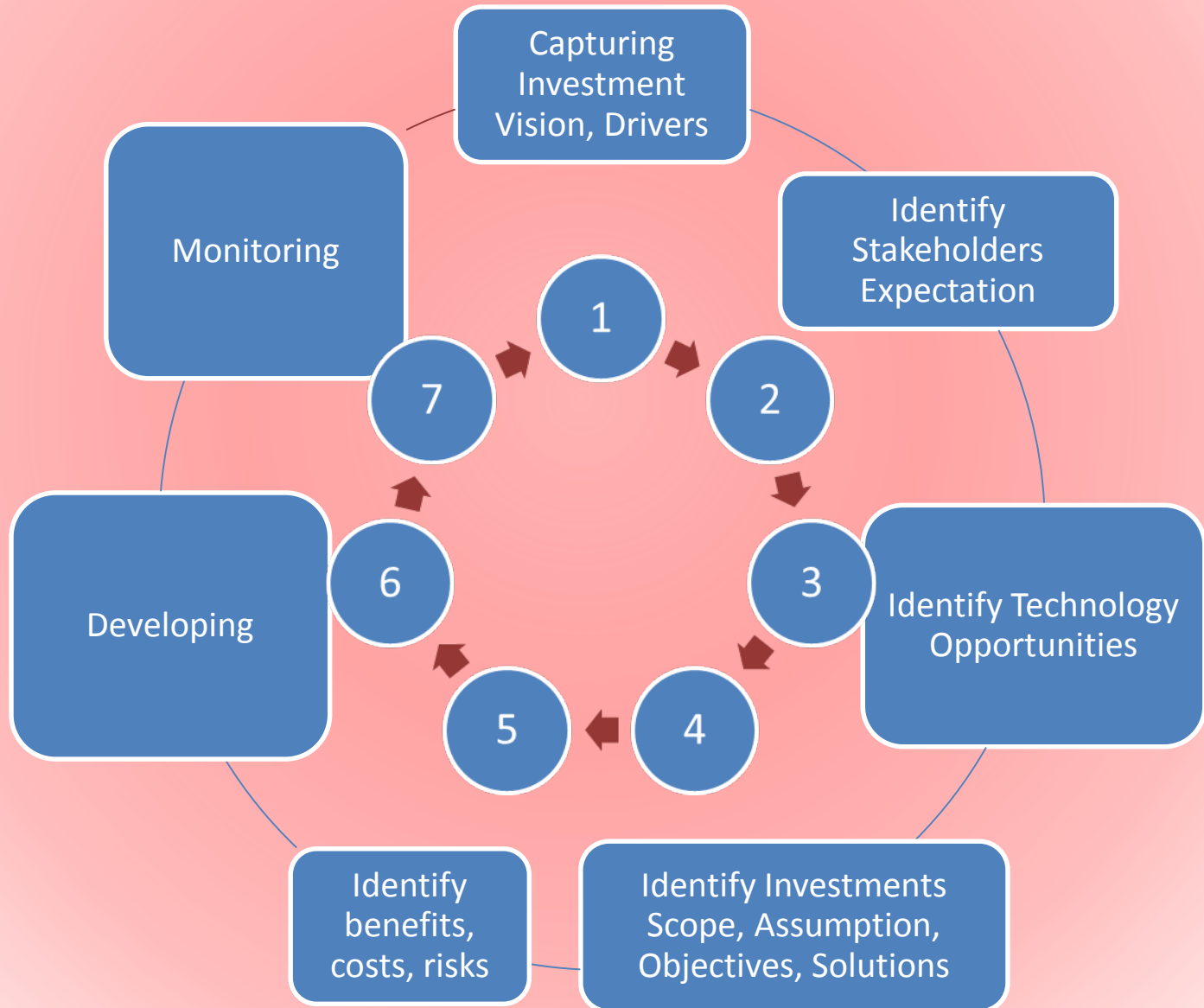
Portfolio Management

- PM1: Establish strategic direction and target investment mix.
- PM2: Determine the availability and sources of funds.
- PM3: Manage the availability of human resources.
- PM4: Evaluate and select programmes to fund.
- PM5: Monitor and report on investment portfolio performance.
- PM6: Optimise portfolio performance.

Investment Management

- IM1: Develop and evaluate the initial programme concept business case.
- IM2: Understand the candidate programme and implementation options.
- IM3: Develop the programme plan.
- IM4: Develop full life-cycle costs and benefits.
- IM5: Develop the detailed candidate programme business case.
- IM6: Launch and manage the programme.
- IM7: Update operational IT portfolios.
- IM8: Update the business case.
- IM9: Monitor and report on the programme.
- IM10: Retire the programme.

Source : ISACA VAL IT

Business Case for BI on EU Agricultural Funds

Capturing Investment Vision, Drivers

Identify Stakeholders Expectation

Monitoring

Developing

1

7

2

6

3

5

4

Identify Technology Opportunities

Identify benefits, costs, risks

Identify Investments Scope, Assumption, Objectives, Solutions

BI Tools

Reports and KPI !

Performance & Conformance

Conclusion : Future Issues & Next Steps

Do we need efficiency and economical improvement on controls processes … why don't we use drones?

Thanks!