www.geoviqua.org

GeoViQua

QUAlity aware VIsualisation for the Global Earth Observation system of systems

5th GEO European Projects' Workshop (GEPW-5). London, 8 & 9 February 2011

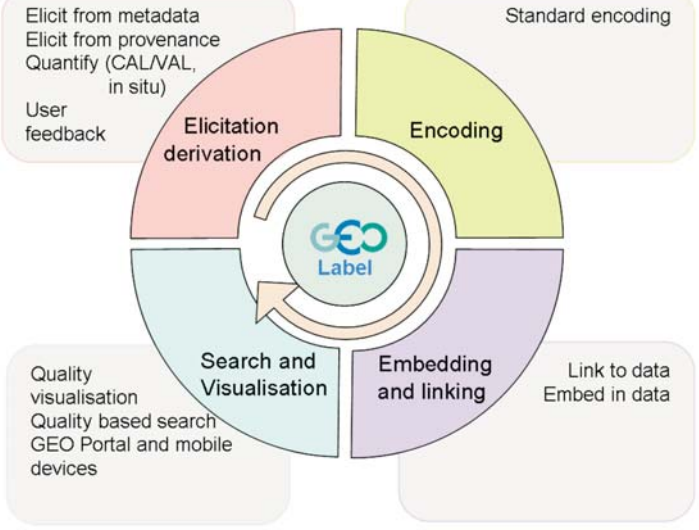
SEVENTH FRAMEWORK PROGRAMME (nº 265178)
THEME [ENV.2010.4.1.2-2]
Integrating new data visualisation approaches of earth Systems into GEOSS development

Objectives

GEOVIQUA will scientifically explore methodologies for extending the GEOSS Common Infrastructure (GCI) adding rigorous data quality in search and visualisation GEO Portal. GEOVIQUA will provide innovative components for augmenting the GEOSS and its adoption by the communities; contributing to catalyze research and development (R&D) activities on GEO (GEO task ST-09-01) and contributing to the GEO Label development (GEO task ST-09-02). Methodologies for extending the current GCI will be explored and the new components validated through AIPs to come (GEO 2009-2011 WORK PLAN).

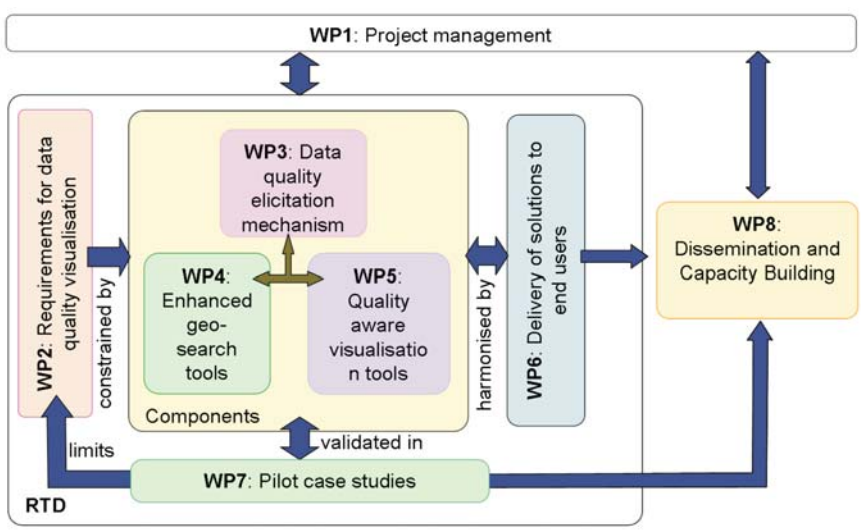
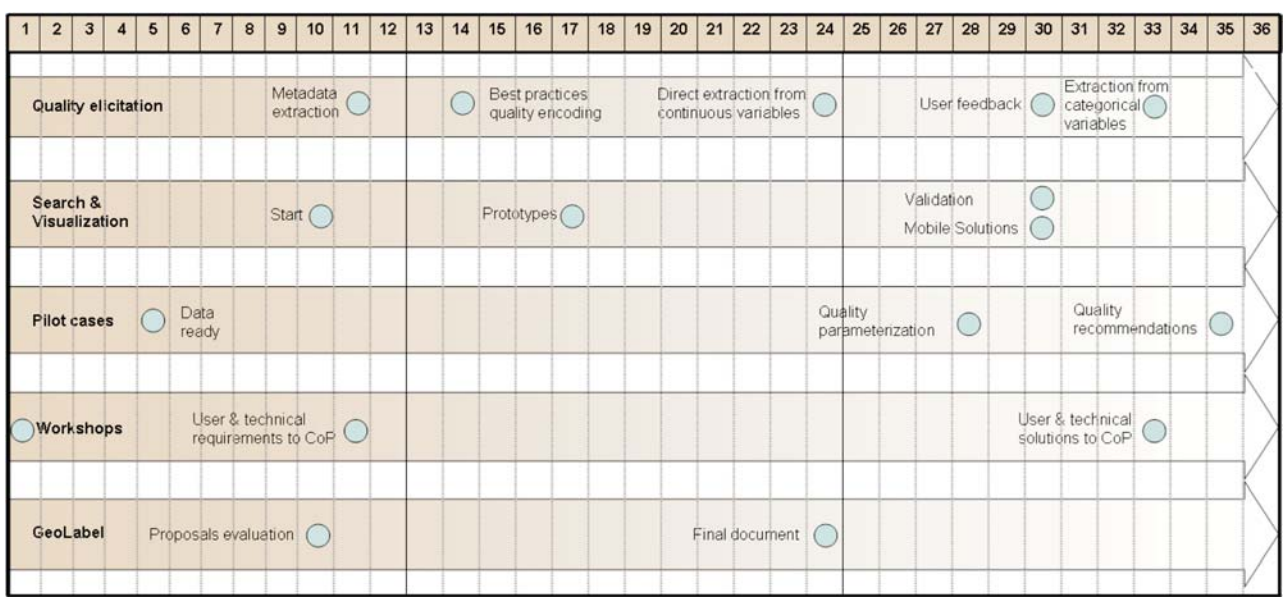
Sources of quality information in GeoViQua

• Quality information based on provenance information describing the processing and quality control applied to the data in the current operational setting.
• Quality information based on quantitative assessment of the uncertainty associated with the data. In the case of remote sensing images, uncertainties are based on pre-launch "uncertainty budgets" and post-launch statistical assessment (QA4EO documentation).
• Quality information based on user feedback related to their view of the utility of the data in their specific context, in the form of subjective qualitative statements and a reviewing mechanism.



Pilot Case Studies in GeoViQua

	Techniques									Source					SBA									Time				Scale		
	Detection	Digitizing	Classification	Comparison of series	Generalization	Interpolations	On field validation	Summaries	Numerical models & indices	Raw Satellite	In situ sensors	Aerial photograph	GIS, DEM	Satellite derived products	Disasters	Health	Energy	Climate	Water	Weather	Ecosystems	Agriculture	Biodiversity	Near real time	Daily-weekly	Annual	Multiyear	General	Regional	Local
AgriPC		X	X			X		X		X		X							X			X				X		X	X
CarbonPC				X		X		X			X			X				X			X		X			X		X		
ClimPC				X		X	X	X	X	X	X		X					X		X					X	X	X	X	X	
AirQuaPC	X					X	X				X					X								X					X	X
LandPC		X		X	X							X									X		X					X	X
FisheryPC	X				X			X		X	X			X		X		X	X			X	X			X	X		X	X
RS_PC	X		X						X	X					Cross SBA										X				X	X

Overall strategy and work plan description in GeoViQua

• Consortium Management and assessment of progress and results (WP1).
• Collection of User Requirements and translation into Technical Requirements (output: Preliminary design, WP2).
• Research and Development (output: Developed components ready for integration, WP3, WP4, WP5).
• Components integration and validation (output: Integrated system, WP6).
• Pilot use cases studies validation (output: Validated system, WP7).
• Outreach, sustainability, exploitation and contribution to standards (WP8).