

EO-LDAS Community Workshop

ESRIN 16-17 November 2009

Agenda: Day 1

14:15 Setting the Scene

- ESA science strategy and future programmes (Einar-Arne Herland ESA)
- History and context for the project (Michael Berger, ESA)
- LDAS scope, users and high level requirements (Jon Styles, Assimila Ltd)

15:00 Science and Applications Perspectives

Key issues for EO of land surface processes. *Bernard Pinty, JRC*

Experience with land data assimilation for agriculture and carbon cycle applications. *Frederic Baret, INRA*

Assimilating Canopy Reflectance data into an Ecosystem Model with an Ensemble Kalman Filter. *Philip Lewis, UCL*

Practical lessons in implementing Data Assimilation. *Alan O'Neill, NCEO*

16:30 Overview of the LDAS Scheme

LDAS overall architecture (Jeff Settle, U Reading)

Agenda: Day 2

09:30 Technical Sessions

1. Surface Modelling Lead: Sietse Los, U. Swansea
2. RTM Lead: Nadine Gobron, JRC
3. Assimilation Lead: Phil Lewis, UCL

13:30 LUNCH

14:30 Validation

Test Site and Data Chris Schmallius, U. Jena

15:30 Summary / discussion on main outcomes - Initial ideas on Road-map

16:00 Wrap-up

16:30 Close

Objectives of the project

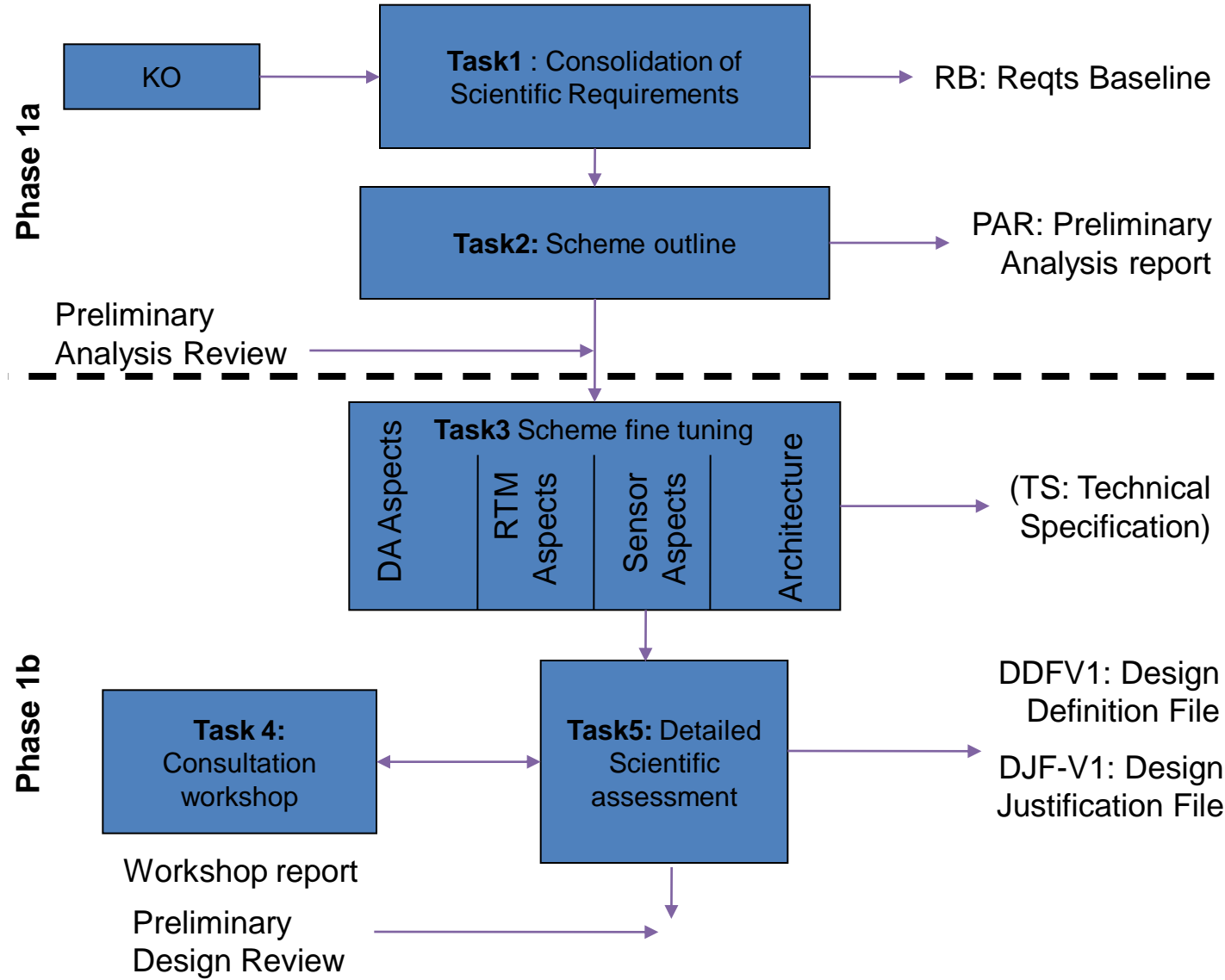
- Establish scientific requirements for EO-LDAS for medium resolution optical data
- Develop overall scheme architecture and interfaces
- Consult with the scientific community to confirm structure of the scheme and priorities for initial implementation
- Implement prototype with selected components
- Validate prototype

- Develop scientific roadmap for further development

The Team

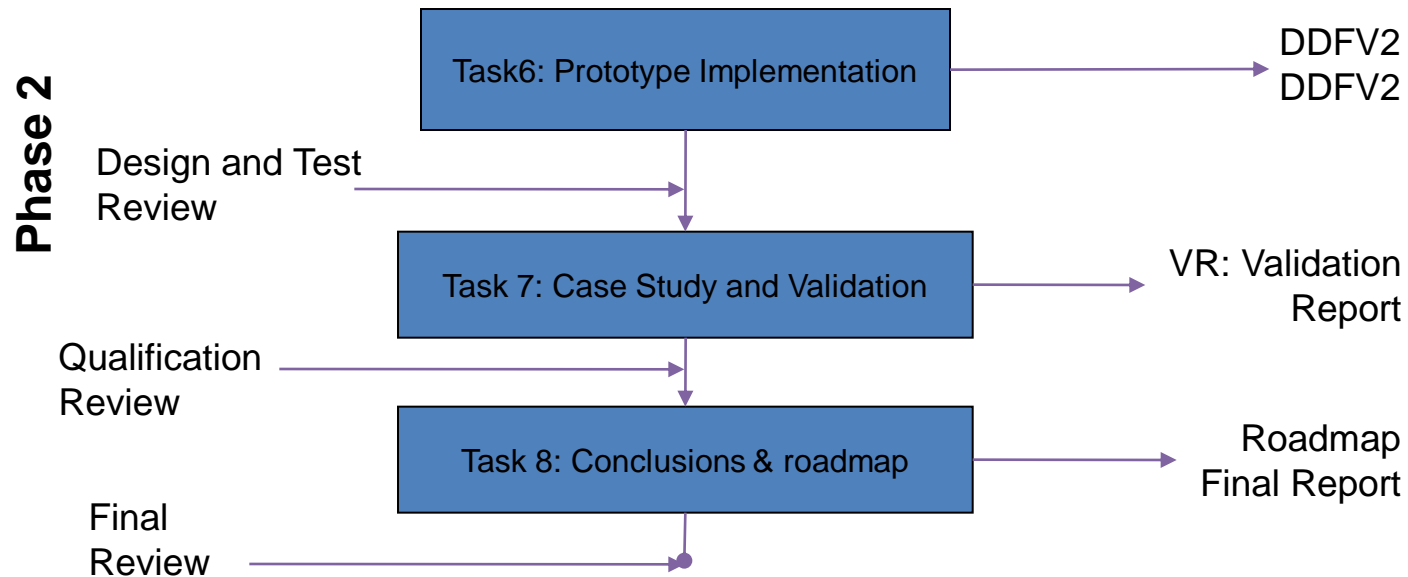
- National Centre for Earth Observation
 - U. READING
 - UCL
 - U. Swansea
- JRC
- Fastopt
- U Jena
- Science Systems

Overview of work– Phase I revised



To be distributes after the workshop

Overview of work programme – phase 2



Schedule

WP	Title	Start	2009												2010								
			FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	Consolidation of scientific reqts.	2-Mar-09		█	█																		
2	Scheme Outline	27-Apr-09				█	█																
3.1	Scheme Fine Tuning	1-Jun-09					█	█	█														
4	Consultation Workshop	30-Sep-09											█										
5	Detailed Scientific Assessment	3-Aug-09								█	█	█	█	█	█	█	█						
6	Prototype implementation	5-Apr-10															█	█	█	█			
7.1	Campaign Data collection	5-Apr-10															█	█	█	█			
7.2	Validation	7-Jun-10																		█	█	█	█
8	Conclusion and Road Map	9-Aug-10																				█	█
9.1	Phase 1 Management	2-Mar-09		█	█	█	█	█	█	█	█	█	█	█	█	█	█						
9.2	Phase 1 Engineering	2-Mar-09		█	█	█	█	█	█	█	█	█	█	█	█	█	█						
9.3	Phase 2 Management	5-Apr-10															█	█	█	█	█	█	█
9.4	Phase 2 Engineering	5-Apr-10															█	█	█	█	█	█	█
	Milestones	Week of																					
	KO	2-Mar-09		█																			
	PAR	29-Jun-09					█																
	Workshop	22-Oct-09											█										
	PDR	29-Mar-10															█						
	DTR	30-Jun-10																		█			
	QR	30-Aug-10																				█	
	FR	27-Sep-10																					█

Requirements: Users

- ESA, and other agencies
 - Next generation retrieval methodology
 - Analysis of observing systems OSE, OSSE
 - Principal interest is the data
- Scientists
 - Better understanding of physical systems
 - Principal interest is the model
- Potentially, operational end users
 - Eg in agriculture
 - Principal interest is the geophysical parameter

Requirements: Use Modes

- Physical Modelling
 - Aimed at scientists as users – possibly later on operational
 - Focus on the process model
 - Interactive, toolkit mode
 - Capability to substitute components
- Constrained Retrievals
 - Aimed at space agencies as users
 - Focus on data best EO products
 - Operational mode
- Experimental
 - Aimed at expert (in DA) users
 - Focus on the observing system & errors
 - Highly interactive mode

Workshop Objectives

- To review the emerging scheme design
- To validate the overall scheme
- To discuss detailed implementation options and priorities for the prototype
- To identify opportunities for widening participation – testing the prototype and validation
- To identify initial priorities for the road-map and future research and development actions