

Extension Phase Proposal (Quad- and Dual-) Pol-InSAR Techniques on ALOS / PaISAR Data

- **Project objective:** Assessment of the value of Polarimetric Information for Forest parameter Characterisation: The Proposal consists of 3 Tasks:

Task 1: Exploration of temporal **Quad-Polarimetric** signatures for forest characterisation.

- **Project area:** Limited Number of Selected Prototype Test Sites Worldwide. A list of appropriate test sites has been agreed for the first part of the project and can be used as a basis for this extension.
- **Outline of project plan:** We propose to use the already existing time series of Quad-pol data (where they exist) extended by the **Quad-pol** acquisitions foreseen/possible in the PALSAR Observation Strategy from 2009-2011 to investigate the temporal evolution of polarimetric signatures for forest characterisation.
- **Time schedule:** 01.2009-01.2011
- **Definition of deliverables:** Technical report (due 10.2011).
- **Data requirements:** FB-Quad Polarimetric SLC data
- **Other issues:** The acquisition of the new data with the same incidence angle as in Phase 1 of the K&C is strongly recommended to keep continuity.

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Task 2: Exploration of **Dual-Polarimetric** temporal polarimetric signatures for forest parameter characterisation.

- **Project area:** As in Task 1.
- **Outline of project plan:** We propose to use the already existing time series of Duad-pol data (where they exist) extended by the **Dual-pol** acquisitions foreseen/possible in the PALSAR Observation Strategy from 2009-2011 to investigate the temporal evolution of polarimetric signatures for forest characterisation.
- **Time schedule:** 01.2009-01.2011
- **Definition of deliverables:** Technical report (due 10.2011).
- **Data requirements:** FB-Dual Polarimetric SLC data
- **Other issues:** None

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Task 3: Comparison of **Dual- vs Quad-Polarimetric** information content with respect to (temporal) polarimetric signatures for forest parameter characterisation.

- **Project area:** As for Task 1.
- **Outline of project plan:** We propose to assess and quantify of the Dual-pol vs. Quad-pol information value for forest characterisation applications
- **Time schedule:** 01.2009-01.2011
- **Definition of deliverables:** Technical report (due 10.2011).
- **Data requirements**
 - FB-Dual / FB-Quad-Polarimetric SLC data
- **Other issues:** None