Following previous meetings contributions will be invited covering the following main themes, i.e. general land-use and classification, agriculture, soil and hydrology, forestry, ice and snow. Abstracts are solicited that include views on the current status of applications using SAR data as well as the foreseen evolution required to enable or maintain robust applications. The evolution could be in the sense of use of additional either existent or novel auxiliary data products from either other remote sensing satellites (e.g. optical remote sensing) or ground-based networks and systems including climate and forecast models. This evolution could also be sought in the use of SAR-optical combinations and multitemporal, multi-wavelength SAR data products given SAR systems covering L- to X-band seem to be available to the community for many years to come and P and S band products will start to be available.

In order to enable fruitful discussions at the workshop and to provide guidance to authors, the following broadly applicable seed questions have been prepared:

SAR INTRINSIC DATA HANDLING/USE

* Is the addition of interferometric coherence as an additional information source useful? Which applications originally making use of intensity relationships have the potential to profit most from adding such coherence product?

* Is the dual polarimetric nature of Sentinel-1 a real game changer for some applications over land?

* Taking into account high-revisit (i.e., > 2 acquisitions made available on a monthly basis) SAR systems, would seem to profit all applications? Do multi-temporal retrieval algorithms have a commonly agreed scientific basis or is additional research required? If so, in what direction and to what extent?

* Noting that L-, C- and X-band SAR missions are routinely making observations and will continue to do so in the foreseeable future, is the quantification of the added value of combining wavelengths in the retrieval of bio-/geo-physical parameters straight-forward?

* Given current variety of data policy between existing SAR missions, is there a need for multi-wavelength test data sets for demonstrating such capability?

* How will new space borne capability using SAR satellites to be operated at P- and S-bands impact currently existent land applications?

SAR APPLICATION EVOLUTION

* What types of applications are mature and cost-effective at the same time so as to be suitable for commercialisation?

* Are application products sufficiently easy to understand and to use for a final user community? Is there any work to do for creating more user-friendly products or platforms to easily exploit them?

* What are the SAR applications that have an unquestionable added value [with respect to other non-SAR techniques]?

AUXILIARY DATA

* Are required auxiliary data products routinely made available?

* Vice versa, what additional efforts are required to improve the availability of auxiliary data derived from SAR data for use by the global environmental community, e.g. better global DEMs, urban characterisation, specific land cover characterisations?

IMPACT OF NOVEL TECHNIQUES/DEVELOPMENTS ON SAR APPLICATIONS

* What applications would mostly profit from a combined use of space-borne optical remote sensing data with SAR data? What is the complementary nature of such combination?

* (1) Can – and – (2) To what extent would high-resolution (<1 metre single-look) and short wavelength SAR systems (X-band and above) contribute to building more robust land applications?

* How can SAR Tomography contribute to defining a more robust retrieval of bio- and geophysical parameters? Would the use of SAR Tomography be limited to provide understanding of the scattering distribution(s) and its related mechanisms in order to correct the SAR wave interaction models, or, does it have the potential to be of direct use in the retrieval?

* In case bistatic measurements are available (obviously jointly with the monostatic SAR image), how could such measurements be combined in the retrieval sense? Which application(s) will benefit from such added measurement capability?