

Q4: Data Management

- Data store and management:
 - easy accessibility through API (for developers) and human interfaces
- Data organisation
 - lower level: see data cube discussion yesterday, meta data, feature extraction, ...
 - internal data format may be different than user products format
 - has the potential to be a common effort across countries
 - attractive for intermediate service providers / tools developers to have one interface rather than several
- Value added services, user products
 - examples:
 - atmospheric correction
 - ortho-rectified mosaicks of surface reflectances at national level, several times per year (frequency tbd).
 - tiles of 100 x 100km² seem to be a good size
 - data formats:
 - typical user products today netCDF, GeoTIFF, ... ask users

ESA Data Hub S/W
is public domain.
Can it be used?
not ready yet

Q5: Ortho-Rectification

- The ortho-rectification and DEM as applied by ESA is doing a good job for many countries, but not for all.
- The Planet-DEM used for S2 processing (ortho rectification, slope correction in Atmospheric Correction) is insufficient for rugged terrain, as e.g. in Norway, and countries beyond 60°N, e.g. Finland.
- An effort shall be undertaken to identify (one or more) suitable DEM(s)
 - commercial efforts (e.g. TerraSAR-X, Keystone/SpaceMetric, BlomGeomatics) should be investigated
- A coordinated approach between countries is encouraged, e.g. across Scandinavia
 - requires clearly expressed needs from users (science, mapping and monitoring authorities, VA industry)
 - beside technical issues also management aspects need to be resolved (different budgets etc)

Q6: Atmospheric Correction (AC)

- AC is a support activity for deriving the final products. Accuracy requirements should be determined by the required accuracy of those
 - Analysis of time series is probably driving the accuracy requirement (change detection)
- AC in northern latitudes requires special treatment, e.g. because of aerosols, topographic effects, adjacency effects. This is specifically (but not only) the case for the AC over water.
- Vicarious system calibration (SVC) was discussed. We need to get S2 data to see if SVC is necessary and how it can best be done.
 - this requires proper in-situ instrumentation and operations
- Land and water AC methods have different requirements, strengths and weaknesses. For S2 applications over land, inland water and coastal waters both approaches should be further developed and maybe used in an ensemble type of approach.