Results summary for Vegetation (Forestry, Agriculture):

- Schedule fits quite well => Maybe adapt little (shift one month => May – Aug)
- Larger areas (Remningstorp, Amazon Basin)
- Larger baselines (2000 m – 3000 m) for crop monitoring
- Tree heights should be monitored during the whole year using: different inc angles, Asc/Desc and baselines
- Polarimetry: is required, but HV in TDX&TSX (crosspol) channel is very noisy => maybe use a smaller bandwidth (20 MHz) schould improve the SNR.
- **A coverage of the whole Amazon Basin would have an enormous impact on amazon research => would change everything** (comment from JPL)

In Detail:

General: Tree Height Acquisitions: Choose the inc angle (and orbit direction), so even with the large baselines it is possible for certain areas.

Boreal Forest (Sweden):

- Remningstorp: Quite happy: good data already, to have: **larger Area** than Remningstorp only (County 100x100km for presentations at the officials) / biggest possible area.
- ScanSAR Bi-Static, HoA around 50 m.
- **Single Pol** (co) 4 swaths after each other, two seasons possible?
- Access to **Global DEM Data** would be sufficient => larger Coverage

Agriculture (Spain):

- Agriculture (rice): **Large Baselines** to measure height of the plants
- **dual pol** sufficient (hh/vv) - Polarimetry: cross polarization is of poor SNR. (Comment: DRA is only open for a short period)
- **Shift the acquisition period by one month: Maybe start in May-August**

Crops/Forest Monitoring in Australia:

a) **Agriculture: monitoring Crops** (by "food security") (wheat crops) => agriculture department

- Geoclime Project through CEOS. Interesat: Purpose: about crop types (**discriminate crop types**)

Season: other way as on Northern Hemisphere. Wheat: seeding: march/april, flover: july-august, Harvesting: oct (north)-december (wheat belt: hole in the middle, nothing in the north.

Cotton: When is it grown. Time frame: easier to pick up with optical (monocultures)

Height not that much, **Phenology**: optical: Clouds covers, value add from radar here.

b) Forestry: **forest / no forest maps** (very different forest types in Australia) => support "carbon monitoring program". In the North: Problem with optical satellites: Cloud cover. 20% ground cover (5m??) **Purpose: Know the change during the year**.

Rain forest in Amazon Basin (JPL):

- Foresty: used now: moderate HoA (Testsite brasil) => **Time series:** the longer the better
- **Different (longer) baselines** (1000-1500 KM => HoA 20/10m HoA)
- Monitoring **whole Amazon 2 times** (1x wet season (nov-april), 1x dry, at the moment: only dry season) => dual polarized (hhvv + hhhv)

  ⇨ **Mapping of Amazon Basin would have an Enormous Impact on amazon research => would change everything**

  Check: Change detection already with the already two global Coverages

  ⇨ Alternating Bistatic with 20m HoA => you get also 10 m HoA. Al-Bi and DRA?