

Workshop 1: Users from Industries

Session B: Agriculture

Overall User Needs

- Improving yields
- Fulfilling environmental requirements
- Reporting and claims
- Managing the logistics chain

Specific Needs

- Estimating plant growth and potential yield for individual parcels and individual types of crops
- Estimating yield for very large areas (country, continent, global scale)
- Knowing the well-being of plants (e.g. if too dry, too wet, if infected by insects or fungal diseases)
- Applying fertilizers and pesticides in correct volumes at places where they are needed
- Driving vehicles such they minimize damage on crops
- Understanding risk for flooding or draught
- Reporting to authorities and insurance companies in case of flooding or draught to support claims
- Weather information to plan agricultural activities

Relevant Space Capabilities

- Earth observation: to estimate various plant and biomass indices, estimate risk/effect of floods/draughts, provide weather data, accurate 3D models
- Satellite navigation: precision agriculture (navigation for vehicles), in-situ sensor positioning
- Satellite communication: in-situ sensors reporting