P05: Green biomass and yield estimation	
Maturity score	
Mean: 2.2	**STD:** 0.58

Constraints and limitations

- Cloud presence
- The lack of local in-situ data to train the models.
- Machine learning model uncertainty.

Relevant user needs

UN9: Understanding stock levels and monitoring supply chains.

UN18: Need to monitor crop productivity.

UN29: Need to accurately measure the planted area for crops.

UN38: Need for trustworthy time series of reliable data on assets.

R&D gaps

- Limited training data.
- Models will often be very specific to particular species and cash crops. Also, region-specific.
- The accurate and frequent estimation of stock levels will need further information.

Potential improvements drivers

- Work may be required to review what models are available and then to Identify which are transferable to different regions and potentially different crops and which need to be improved or built from scratch.
- Effort in truthing of predicted values against actual accepted values is likely to need to be undertaken to confidently use the data operationally.

Utilisation level review	
Utilisation score	
Mean: 2.4	**STD:** 0.80

No utilisation:

Users' lack of EO knowledge and skills to utilize the EO product.

Low utilisation

- The product is already satisfying the technical and usability requirements.

Medium utilisation

The product is already satisfying the technical and usability requirements.

High utilisation

Critical gaps related to relevant user needs

Guideline gap

UN18: Need to monitor crop productivity