

P27: Estimation of above-ground carbon stocks in forests	
Maturity score	
Mean: 2.4	STD: 0.64
<u>Constraints and limitations</u>	
<ul style="list-style-type: none"> • Cloud presence • Satellite data might not provide direct measurements of biomass, requiring the use of models and assumptions that can introduce uncertainties. • Rely on reference data 	
<u>Relevant user needs</u>	
UN30: Need for monitoring with accurate measurements the growth and health of trees. UN32: Need to periodically estimate the growth of above-ground carbon stocks (in forests).	
<u>R&D gaps</u>	
<ul style="list-style-type: none"> • Lack of ground truth data about tree height and structures obtained from field work or LIDAR. • In-situ data is very important for accurate estimations, especially, with certain sensors that reach saturation. 	
<u>Potential improvements drivers</u>	
<ul style="list-style-type: none"> • Training datasets of tree inventory • Missions provide biomass directly 	
Utilisation level review	
Utilisation score	
Mean: 2.29	STD: 0.88
<u>No utilisation</u>	
<ul style="list-style-type: none"> • Users' lack of EO knowledge and skills to utilize the EO product. • Unawareness of the existence of this EO product 	
<u>Low utilisation</u>	
<ul style="list-style-type: none"> • Unawareness of the existence of commercial EO products with better specifications • Higher cost of using the commercial EO product • Only aware of its use as a proxy of macro-economic indicators. There were trials of using it to track emissions of specific assets, but it was difficult to reconcile the results against the reference estimations . 	
<u>Medium utilisation</u>	
<ul style="list-style-type: none"> • Higher cost of using the best available commercial EO product. • Most data providers used by financial institutions seem to rely on open EO data . • Unawareness of the existence of the best available commercial EO product with better specifications. 	
<u>High utilisation</u>	
Critical gaps related to relevant user needs	
Utilisation gap	
UN30: Need for monitoring with accurate measurements the growth and health of trees. UN32: Need to periodically estimate the growth of above-ground carbon stocks (in forests).	

