Description fine des stratifications forestières et de leur combustibilité





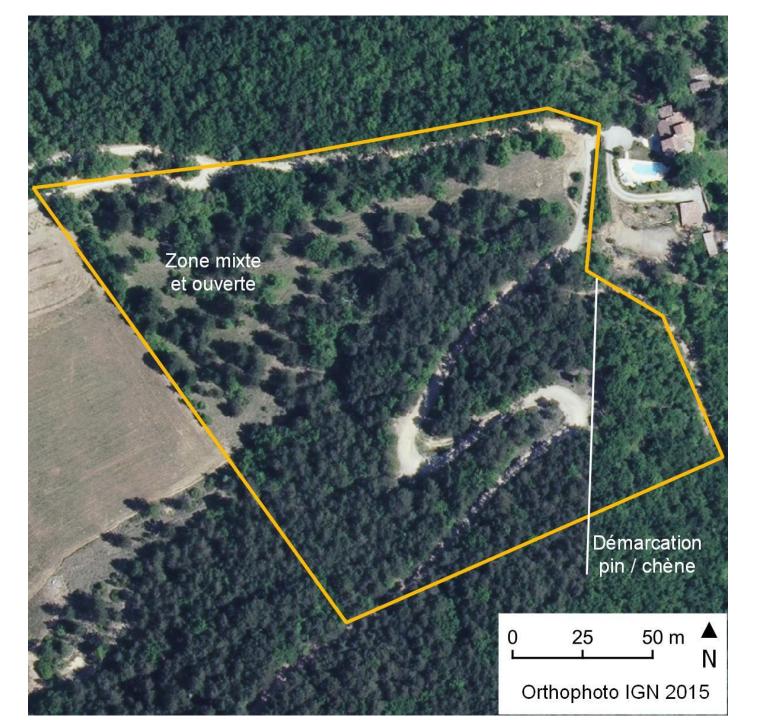
Nathan Wolff Florent Thebault Samuel Mermet Elie-Alban Lescout Alexis Jean

Collaborateur : Christophe Bouillon (IRSTEA)

Encadrant : Marc Poupée (ENSG)

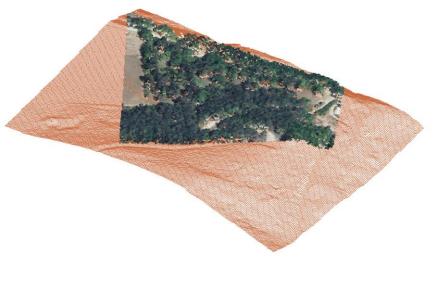


Les dessous de la canopée

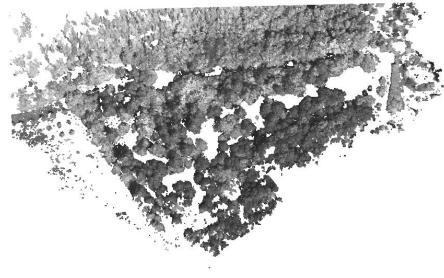


Données

<u>LiDAR</u>



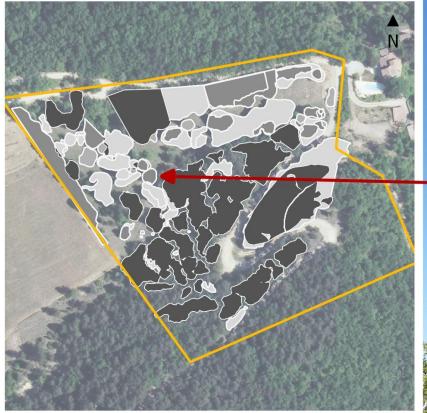
<u>Photogrammétrie</u>

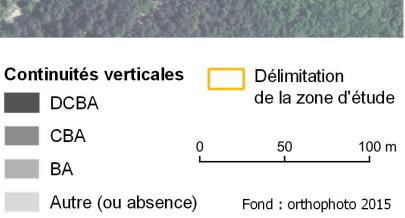


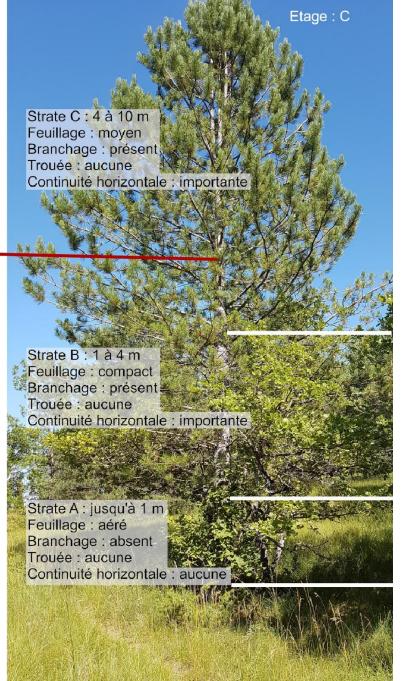
<u>Satellite</u>

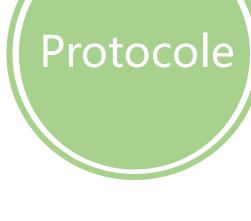


Continuités verticales et horizontales des placettes enquêtées

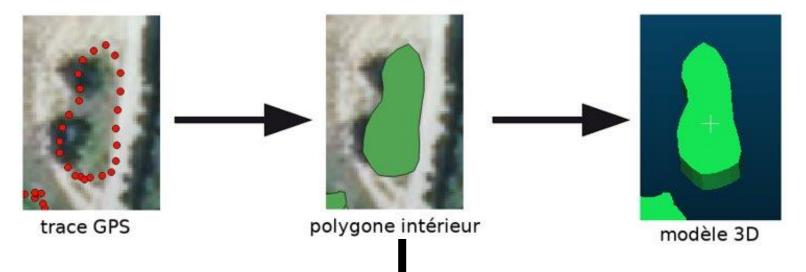












Relevé terrain des caractéristiques de la biomasse:

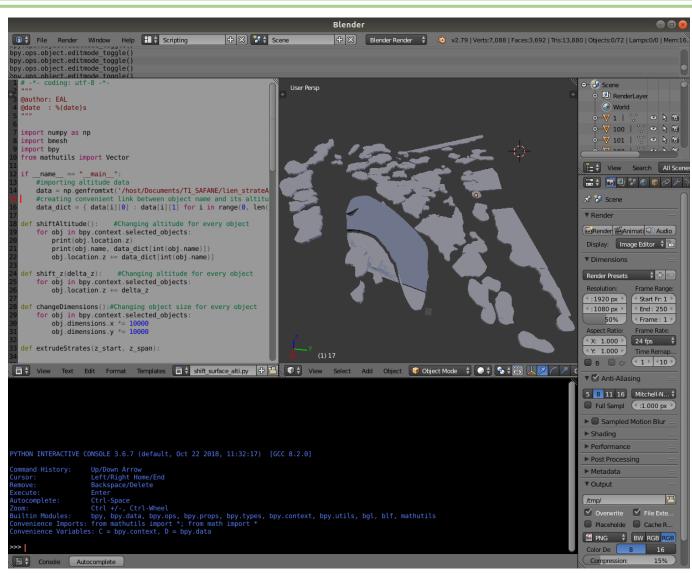
Zone	Placette	Espèce	Etage	Strate	Feuillage	Branchage	Trouée	Continuité horizontale
1	1	С	С	С	0	0	0	0
1	1	С	С	В	2	1	0	1
1	1	С	С	Α	2	1	0	2
1	2	M	В	В	1	1	2	1
1	2	M	В	A	1	1	2	1
1	3	M	A	Α	3	1	0	2
1	4	С	В	В	3	1	2	1
1	4	С	В	Α	3	1	2	1
1	5	С	С	С	3	1	0	2
1	5	С	С	В	3	1	0	2
1	6	G	В	В	3	1	0	2
1	6	G	В	Α	3	1	0	2
1	7	M	В	В	2	1	0	2
1	7	M	В	Α	2	1	0	2
1	8	M	С	С	3	1	0	2
1	8	M	С	В	3	1	0	2
1	8	M	С	Α	1	0	0	2
1	9	M	В	В	3	1	0	2
1	9	M	В	Α	3	1	0	2
1	10	PS	С	С	3	1	0	2
1	10	PS	С	В	1	1	0	2
1	11	M	R	R	2	1	1	2

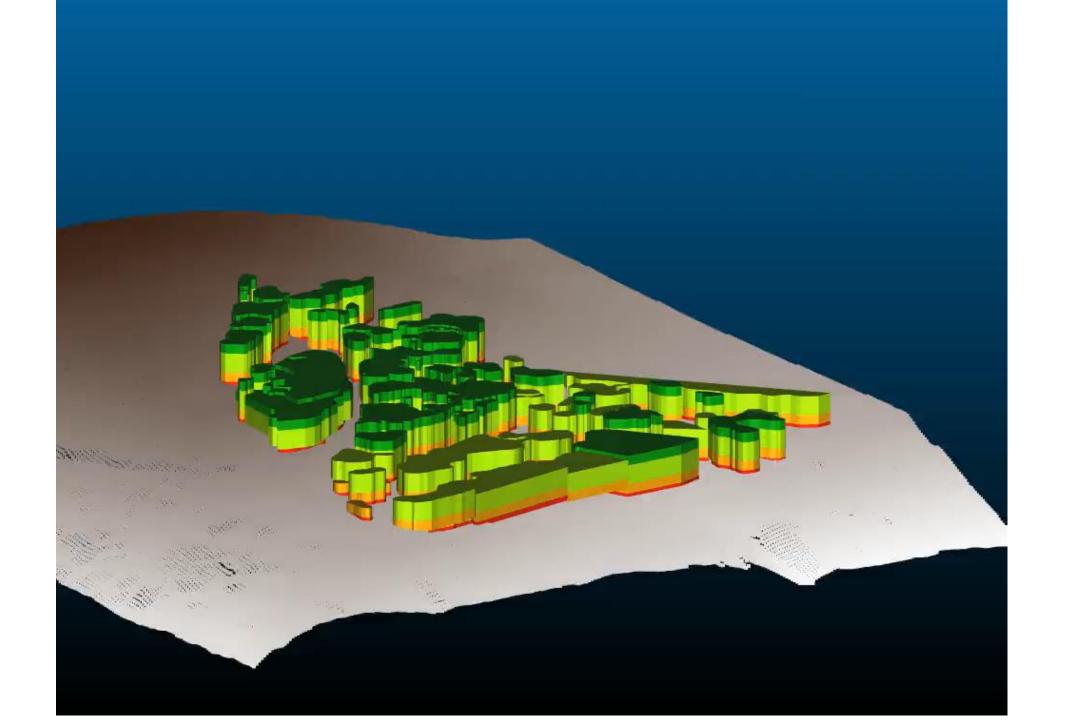


Modélisation 3D







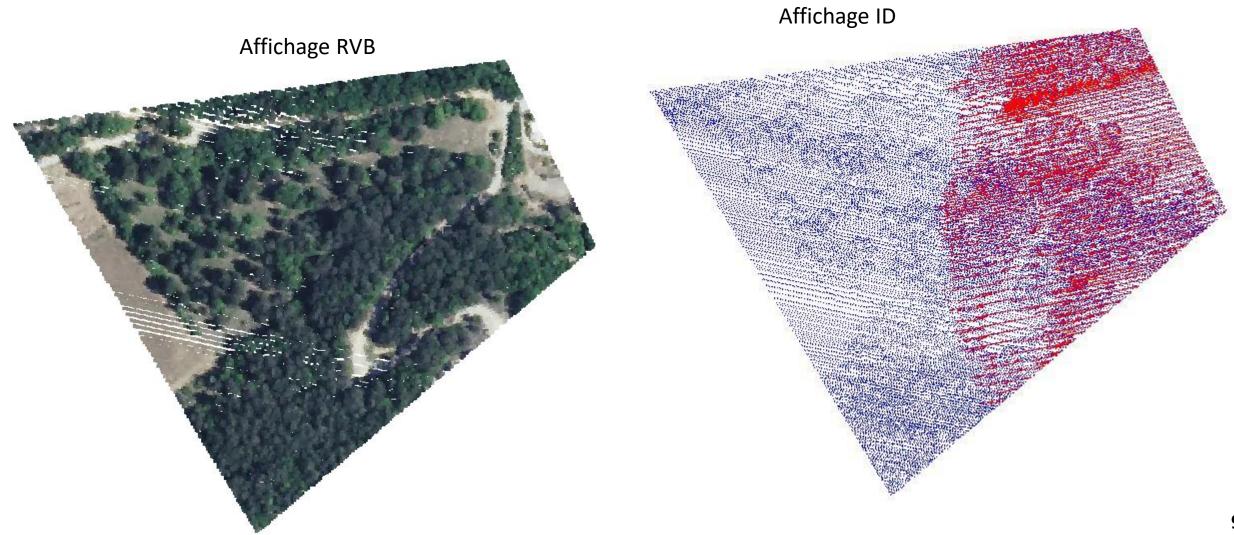


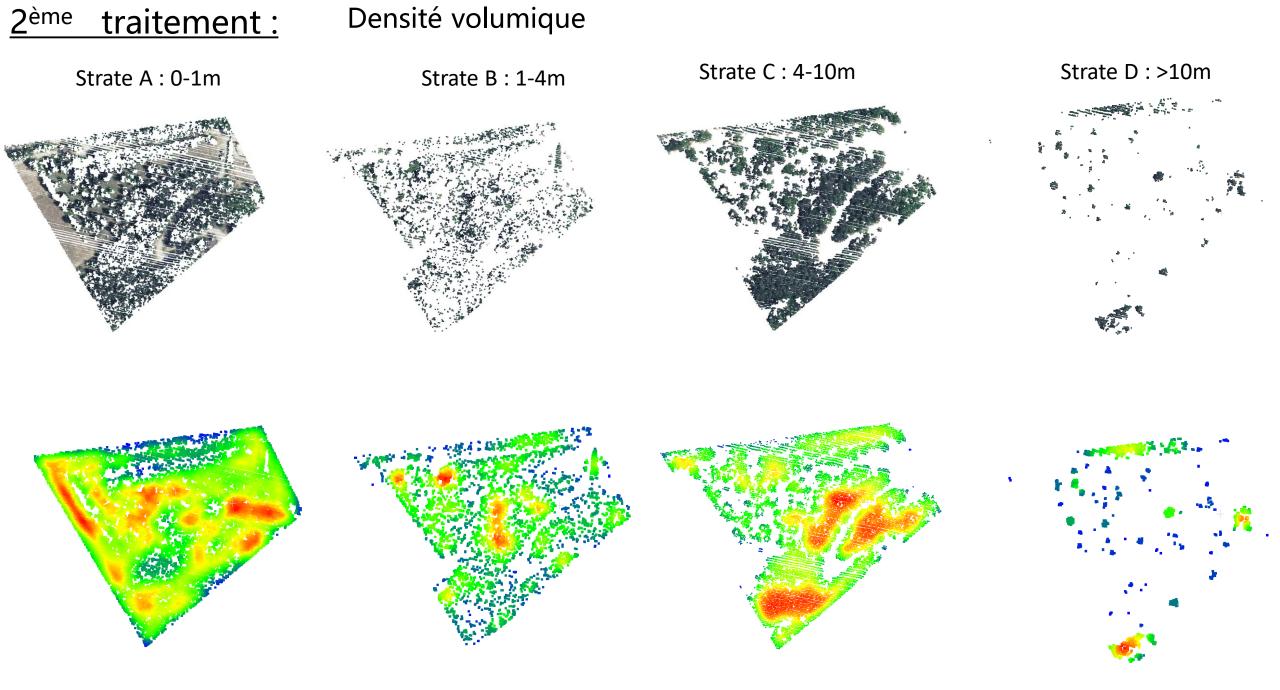
Lidar



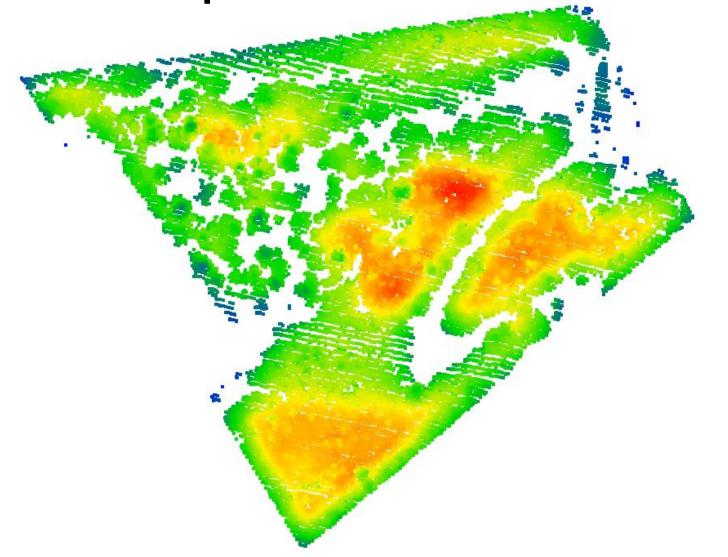


<u>traitement:</u> 1 er



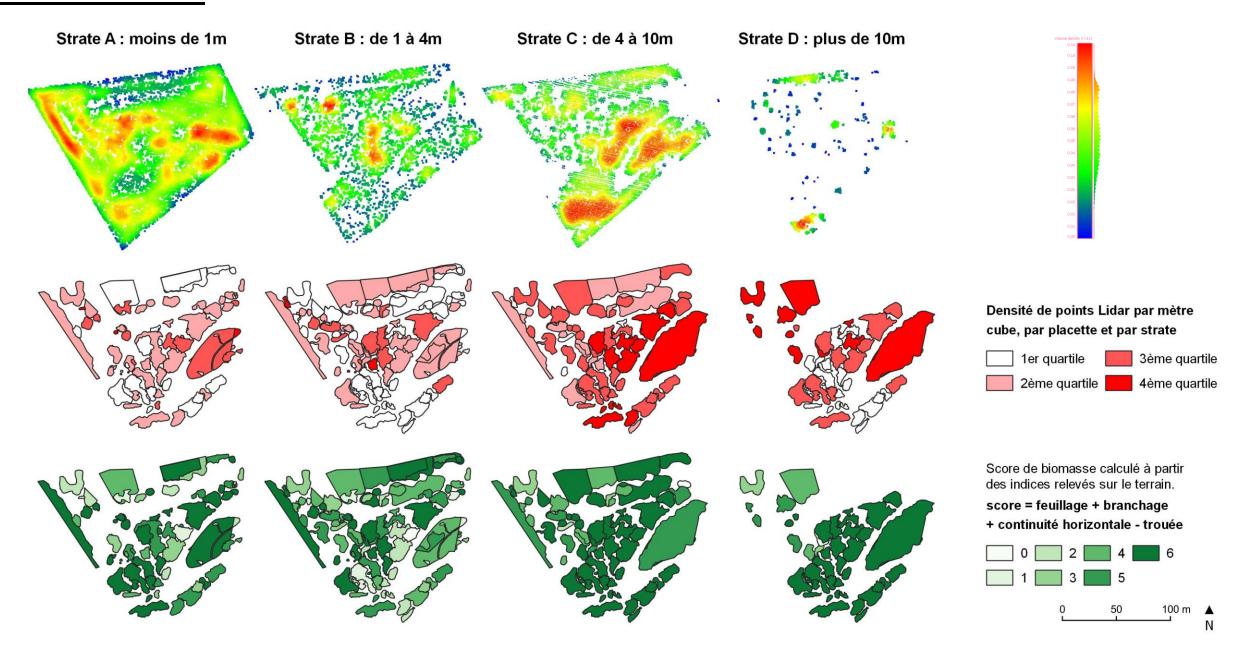


Densité volumique



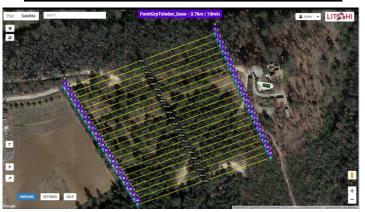


Résultats

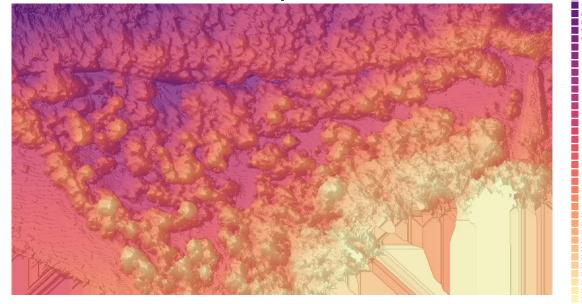


Photogrammétrie

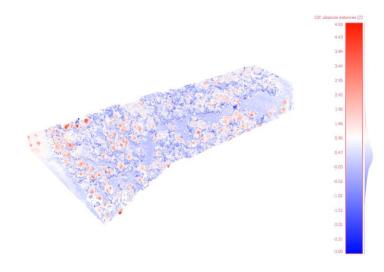
Plan de vol du drone



Carte des profondeurs

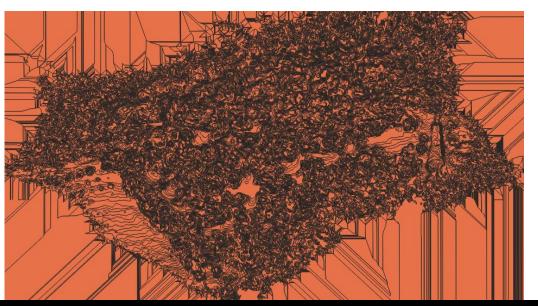


Ecart entre nuage LiDAR et nuage photogrammétrique





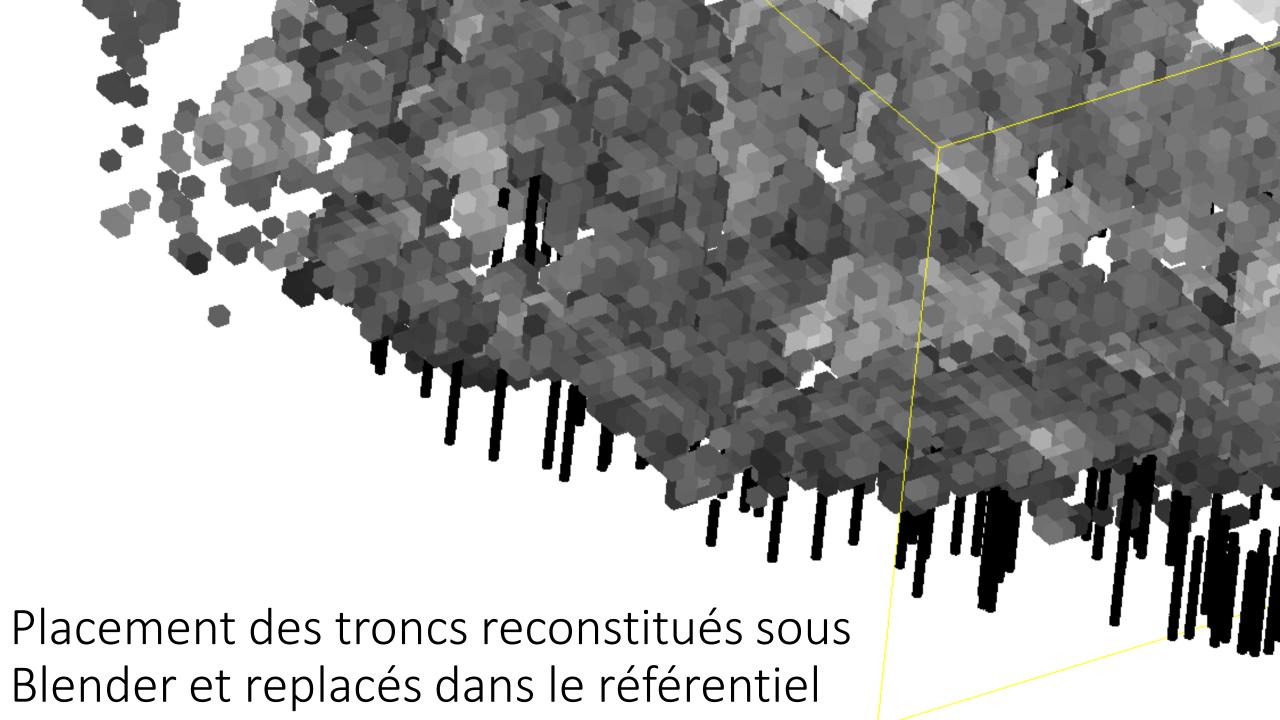




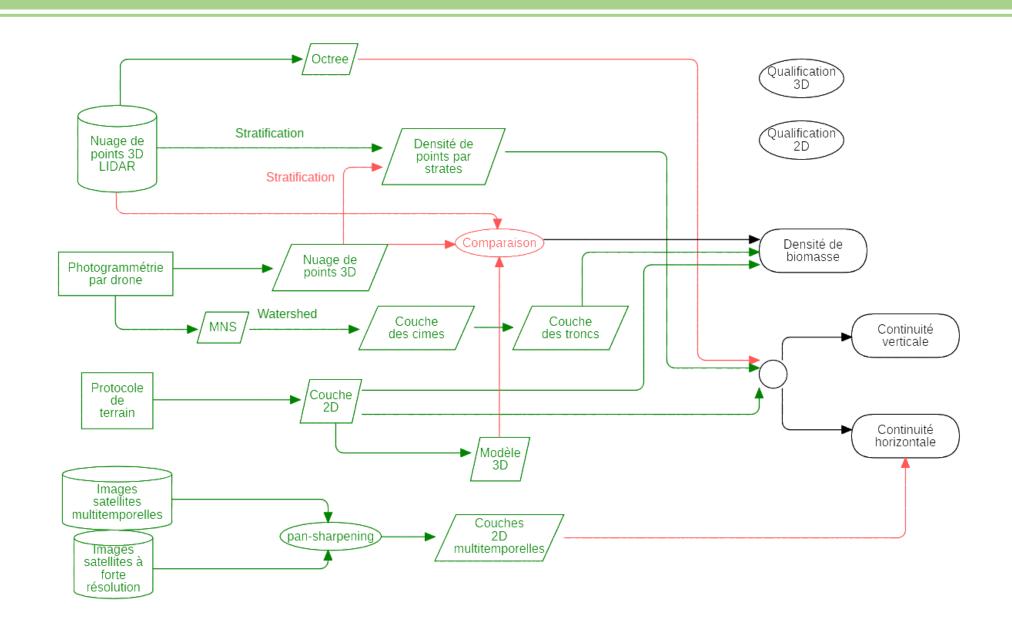
Segments restant après une sélection



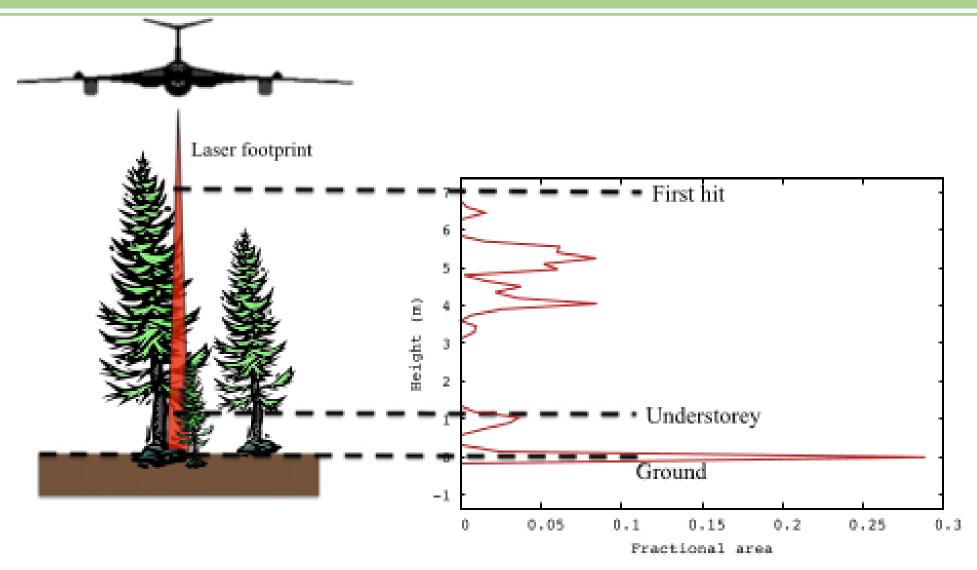
<u>Segments finaux = cimes des arbres</u>



Bilan : chaine de traitement



Perspectives



Principe du LiDAR à forme d'onde (Source : Hancock [2017])

Merci pour votre écoute

