Table 1. Performances and limitations of the different fusion approaches

Fusion approach	Performances	Limitations
Prior-level	-Direct use of semantic information from images -Fast convergence -Low loss function -High classification accuracy.	-Problems of non-overlapping regions and uncertainties -Bit long process
Point-level	-Fast drive -Easy handling -No prior information is required.	- High cost - Not able to classify diversified urban contexts - Relatively low classification accuracy
Feature-level	-Objective data compression -Retaining enough important information	-Training loss higher -Features may not reflect the real objects.
Decision-level	-Non-interference of the two semantic segmentation processes -Good flexibility -Low-complexity -Learning the representation of independent features is allowed	-Impacted by the shortcomings of both classifiers. - Additional parameters for layers are required - More memory requirement