

Validation campaign results from using Sentinel-1 6 day coherence for detecting mowing and ploughing events

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Copernicus Sentinel-1 data provides a unique possibility to monitor agricultural parcels with continuous time series in virtually all weather conditions. Estonia is among the first countries to take advantage of this data source and an automated country-wide mowing and ploughing events detection system is being developed. 2017 is the validation and testing year of the system, as in 2018 it will go to operational mode. The validation results based on more than 2 000 field data supported mowing and ploughing events are presented, together with the lessons learned from the development process. According to preliminary results when using Sentinel-1 only 85% accuracy is achieved. Tests in limited area have shown that when combining Sentinel-1 time series with Sentinel-2 time series accuracies over 95% can be achieved.