

Experience with Sen4CAP in Lithuania

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Outline

1. Main goals for Sen4CAP results
2. 2020 claim year with Sen4CAP
3. Reduced field visits with Sen4CAP
4. Lessons learned
5. Link with NIVA project



Main goals for Sen4CAP results

- Pilot the monitoring approach as much as possible
- Monitor the main activities/requirements
- Assess the quality of the algorithms
- Assess the timing of the data and its correlation with the existing IACS workflows



2020 CY with Sen4CAP

1. Agreed on the transmission of declaration dataset and the receipt of Sen4CAP results
2. Dates adjusted to inspections timeline
3. Difference between planned and the actual date with results upload
4. First results delay caused of testing cloud mask toolbox Sen2COR, better results with MAJA

Version	Declaration dataset reception date	% of parcels	In situ data	All algorithms results	Algorithms results			Comments
					L4A	L4B	L4C	
1	Previous year data set	100%		01/04	+			Land cover classification by customized configuration file (crop grouping by land cover) L4A Results uploaded to FTP 14/05
2	Previous year data set	100%		01/05	+			Land cover classification by customized configuration file (crop grouping by land cover) L4A Results uploaded to FTP 27/05
3	04/05 (Real upload date – 14/05)	40% (12/05 107971 parcels – 10%)		13/05	+			Land cover classification by customized configuration file (crop grouping by land cover+ winter crop type) L4A Results uploaded to FTP 11/06
4	18/05 (skipped)	60%		27/05		+		L4B Results uploaded to FTP 30/06 with 28/05 declared parcels
5	01/06 (Real upload date – 01/06)	80% (28/05 545282 parcels – 50%)	27/05	10/06	+	+		In situ data for spring/ winter crops L4A Results uploaded to FTP 26/06; L4B to FTP 30/06
6	15/06 (Real upload date – 15/06)	90% (10/06 819063 parcels – 73%)	10/06	24/06		+		In situ data for Grasslands indicating mowing/grazing L4B to FTP 01/07
7	01/07(Real upload date – 02/07)	95% (30/06 1173502 parcels – 98%)		08/07	+	+	+	L4A Results uploaded to FTP 13/07; L4B to FTP 16/07 (OLD) L4B to FTP 29/07 (ALL parcels); L4C to FTP 09/02
8	22/07 (Real upload date – 24/07)	100%	15/07	29/07		+	+	In situ data for Catch crop (PS), fallow land, spring (nitrogen fixing crops), grasslands(mowing/grazing) L4B to FTP 18/08 ; L4C to FTP 09/02
9		100%		12/08	+	+	+	L4A Results uploaded to FTP 17/09 ; L4B to FTP 18/08 ; L4C to FTP 15/09
10		100%	12/08	02/09		+	+	In situ data for Catch crop (IS), spring/ winter crops L4B to FTP 15/09 ; L4C to FTP 15/09 ;
11		100%	22/09	21/10		+	+	In situ data for Catch crop (IS), (PS)

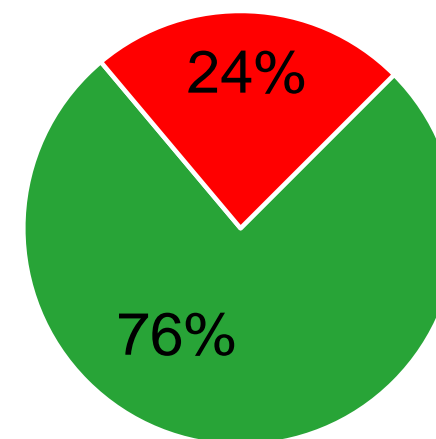


OTSC 2020 campaign - reduced RFV by using Sen4CAP results

- First time Sen4CAP results L4A, L4B after validation used to confirm compliance without field visit
- CwRS images – to measure area
- First time the failed grass mowing parcels and falsely declared arable land parcels checked and identified on whole LT territory

OTSC 3% Sample		
	RFV fields	Reduced RFV fields
Crops	7945	36159
Grasslands	2742	11849

44104 OTSC FIELDS SUMMARY



■ NO RFV ■ RFV



Lessons learned – a big step forward

- Used 2020 Sen4CAP L4A and L4B results at operational level for SAPS controls.
- Simulated 50-250 Euro threshold calculations according provided compliance results from Sen4CAP.
- Geopedia visualization tool on web browser helped to introduce CbM approach to Ministry of Agriculture and farmers.
- Increased knowledge of Sentinel data usage in practice by attending live training workshops.
- Trained skills on requirements writing and it is useful for in house projects and international projects like NIVA, DIONE, ENVISION.



Lessons learned – what should be improved

- In case when grassland detected instead of arable land or vice versa, those parcels are not transferred to other product for further observation of land cover related activities.
- Tracking parcel's „life- cycle“ information over the different product periods is not addressed. There is a need to re-check historic observation values of the parcel.
- The reliable results of grassland maintenance observations are strongly affected by grazing activity (parcels observed as not compliant).



Sen4CAP results at the beginning of declaration – link with NIVA project

Link with NIVA Use Case 2 Prefilled application – NPA lead

Check if any results from Sen4cap crop/land cover type, activity monitoring:

- can be gathered at the beginning of declaration
- can be available during declaration period as preliminary crop type or activity data
- analyse at what concrete time and of how much quantity (crop types/ parcels/area/farmers).

Version	GSAA as input data	Results date	Results
1	2019	01/04	Arable land, Grassland, Permanent Crops, Follow
2	2019	01/05	Arable land, Grassland, Permanent Crops, Follow
3	2020 – 10% parcels	15/05	Arable land, Grassland, Permanent Crops, Follow, Winter crops, Winter rape
4	2020 – 50%	10/06	Crop type

At the beginning of declaration perform preliminary checks and control declaration of:

1. Permanent grasslands on arable land;
2. Winter crops with other crops;
3. Winter rape with other crops;



THANK YOU FOR YOUR ATTENTION



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