

GIS tools supporting LPIS update

LPIS workshop 2013 – Baveno

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Landbouw en Visserij

Agenda

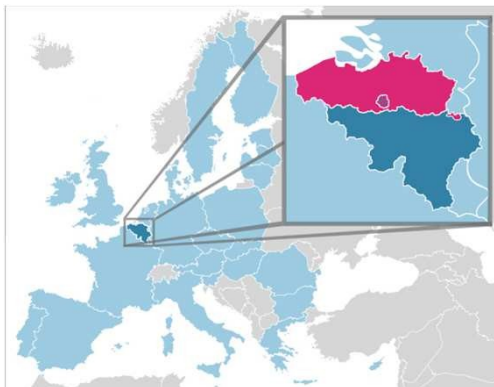
- Flemish LPIS?
- Use existing data for LPIS update!
- Digitizing ineligible features
- Electronic declaration
- Practical day-to-day tools for operators

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Landbouw en Visserij

Flemish LPIS?

- Agricultural (crop) parcel: one crop, one farmer
- Pillar 1, pillar 2 and nitrate directive integrated
- 32.000 farmers
- 680.000 ha declared
- 460.000 parcels
 - +- 1,4 ha/parcel



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Use existing data for LPIS update!

Why use it?

Collecting GIS data is expensive
→ reuse it!

How to use it?

To eliminate ineligible areas



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Use existing data for LPIS update!

• Step 1 : what are (possibly) ineligible features?

- Roads
- Buildings
- Water surfaces
- Forests
- Gardens
- Airplanes
- ...

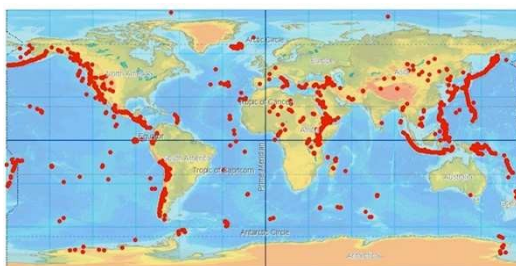


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Use existing data for LPIS update!

- **Step 2 : search existing layers**

- Buildings
- Roads
- Water surfaces
- Rivers
- Kadastral map
- Topographic map
- Forests
- ...



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Use existing data for LPIS update!

- **Step 3: how can we use the data?**

Layer	Quality	Usage
Buildings, roads, water surfaces	Very high	Automatic, real-time cut-out in GIS
Kadastral parcels	Very high	Kadastral parcel with building ~ garden → photo-interpretation by operator
Forests	Low	Overlap > x are → photo-interpretation by operator
...		



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Digitize ineligible features – example (1)



House + garden
in parcel

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Digitize ineligible features – example (2)



Digitize ineligible area
in layer
“ineligible elements”

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Digitize ineligible features – example (3)

- Choose the years the ineligible element is relevant for:
→ Typically 3 years back

Klik op het getekend perceel op de laag 'Niet-subsidiabele laag 2013' automatisch kopiëren op volgende lagen:

Nummer	Beschrijving laag	
<input type="checkbox"/> 40078	Niet-subsidiabele laag 2012	
<input type="checkbox"/> 40050	Niet-subsidiabele laag 2011	
<input type="checkbox"/> 40020	Niet-subsidiabele laag 2010	

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Digitize ineligible features - example (4)



Automatic cut-out in
all chosen years
+ recovery of payments

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Digitize ineligible features

- Conclusion: digitize once,
 - Automatic cut-out in all overlapping parcels
 - Automatic cut out in all relevant years
 - “Blocked” for the future



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Electronic declaration

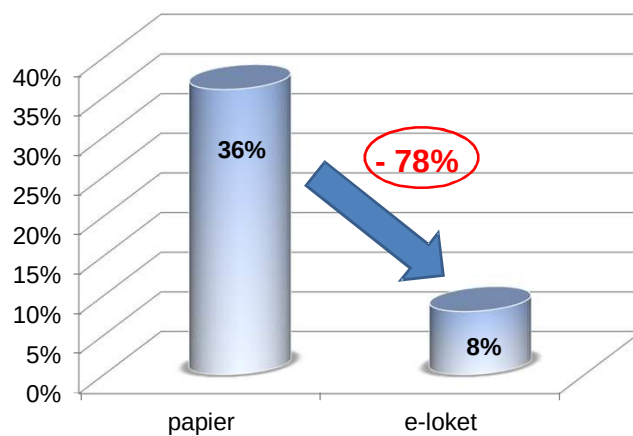
- Main GIS features
 - ~300 different checks (GIS and alphanumeric)
 - detect errors and offer advice
 - Real-time cut-out of all ineligible layers
 - show correct maximum area
 - Visualise overlaps with neighbours
 - GIS tools for the farmer
 - Copy parcel
 - Split parcel
 - Merge X parcels
 - ...



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Electronic declaration

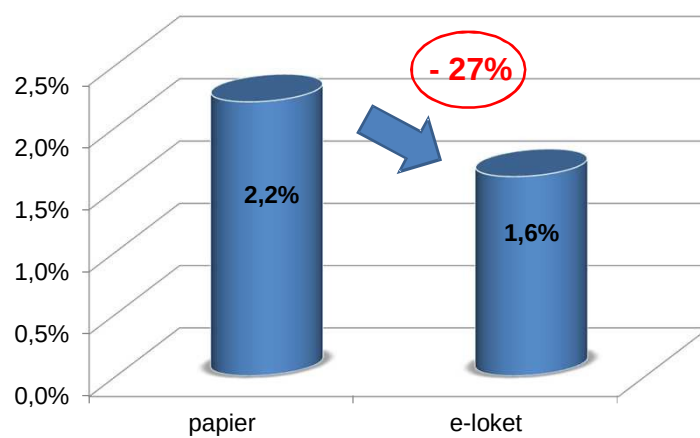
% declarations with corrections needed



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Electronic declaration

% declarations with overlaps between parcels



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Electronic declaration

Conclusion:

- Due to Better (LPIS) input from farmer
 - Decreased administrative burden
 - Improved LPIS quality



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Tool 1: streetview

- Google streetview
-> 2 clicks to open streetview image

Eg.: "Is this a permanent ineligible feature?" → No!



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Tool 2: controlled parcels

Visualize controlled parcels

- Specific icons for different types/years of controls

Examples:

- OTSC, measurement, 2011
- OTSC, visual, 2012
- Selected for on-screen control
- On-screen control finished



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Tool 3: multi-edit

"Multi-edit" tool

Edit all parcels with "shared vertices" in one go

Drag a
shared point

Parcel 1 and 2
are changed



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Tool 4: ineligible element to exclude?

Ineligible element to exclude or not?

- In flanders: if $> 25 \text{ m}^2$
- Tool = anywhere you click:
 - orange, 25 m^2 square is shown



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Tool 5: buffer tool (3)

Next to watercourses: activate "1 meter buffer tool"



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Tool 5: buffer tool (4)

Next to woods: activate "2 meter buffer tool"

Trunks within 2 meter buffer → no update needed



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Conclusions

- Reuse existing data
- Digitize ineligible elements in a separate layer
- Invest in your online declaration system
- Some simple GIS tools can help operators:
 - Work as efficiently possible
 - Follow the digitizing instructions in a consistent way

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Questions



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Conflicts of parcel asage

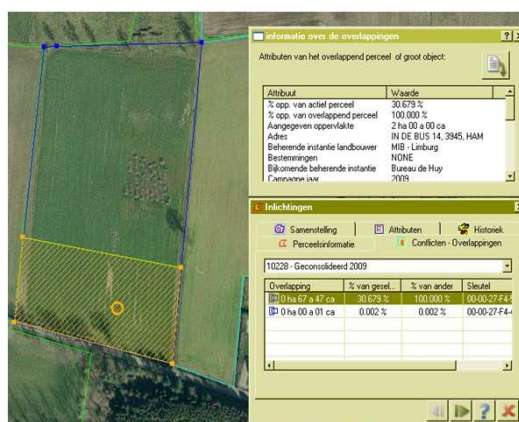
- Conflicts in parcel use
- Automatic report + map generation
- Solution signed by both farmers



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Feature/parcel information (2)

- For the operators: overlaps (orange hatched)
- Inside a layer
- With other layer

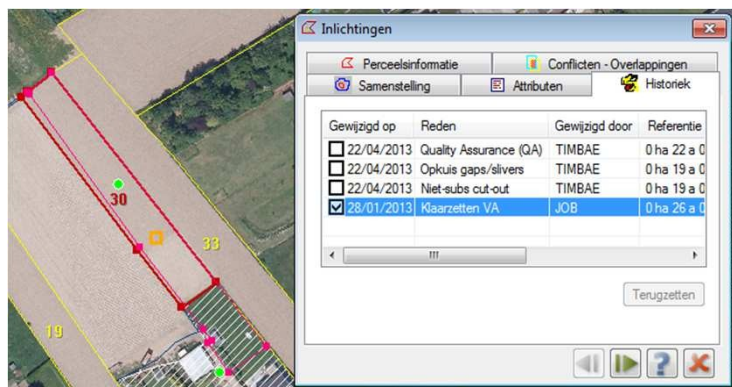


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Tool 4: history of changes

History of changes to LPIS digitisation

- Current situation Red
- Previous situation Pink
- Reason of change / who changed the parcel



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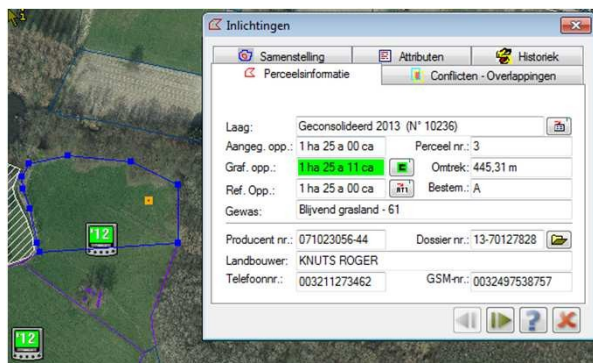


Feature/parcel information (1)

Attributes

- Reference area / declared area / crop(s)
- Farmer information (address / phone number)

1 x x x



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Suspicious parcels and OTSC

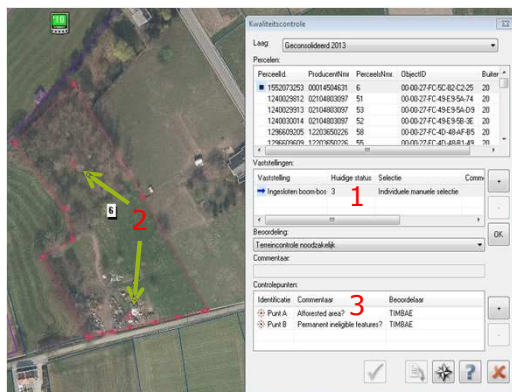
When a doubtful parcel is detected it can easily be sent to an OTSC

Select the parcel and give it a remark (1)

Point out one or more focus points (2)

Give a comment to these points which will be printed on the control report (3)

Validate and an OTSC will be generated



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Electronic declaration

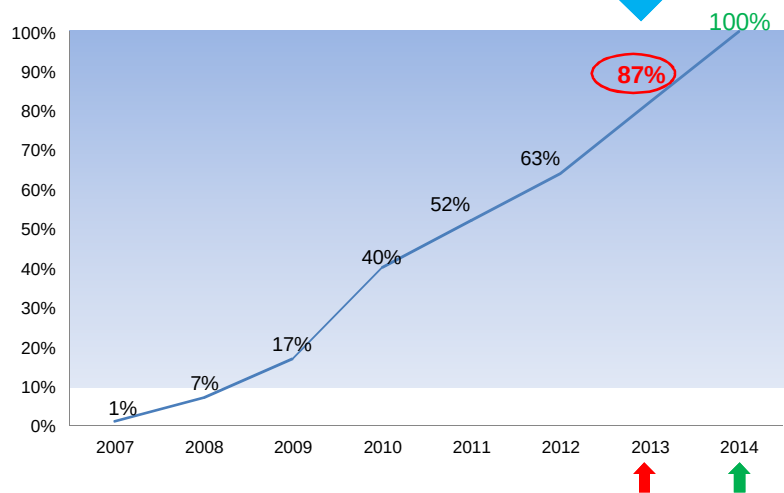
Example: split parcel



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Electronic declaration

% electronic single declarations



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