Identification and measurement of landscape features (LPIS) in Wallonia (Belgium) (C21 and 032)

Wallonie

SPW
Service public de Wallonie

Département de l'Agriculture

Direction des Surfaces agricoles

1. Landscape features presentation

2. Current use: administrative control

3. Maintenance of the landscape features

4. LF layers and C21 and O32: expected issues

1- LANDSCAPE FEATURES PRESENTATION

Why setting up landscape features (LF) layers ?

Implementation in the following contexts:

- **The greening (EFA)** (Art. 5 Reg. (CE) 640/2014)
- **The AECM** (Art. 28 Reg, (CE) 1305/2013)
- **The cross-compliance (conditionnality)** (TITRE VI Reg, (CE) 1306/2013)

LF layers	EFA	AECM
Isolated trees	X	X
Hedges	X	X
Trees in line	X	X
Group of trees	X	X
Ponds	X	X
Ditches	X	
Schrubs		X
Non LF layers		
Field margins	X	

CREATION OF THE LF LAYERS

- **Via public procurement (PIXELIUS firm)**

- **For two departments: Agriculture and Geomatic=> all LF in Wallonia (agricultural, urban and peri-urban)**

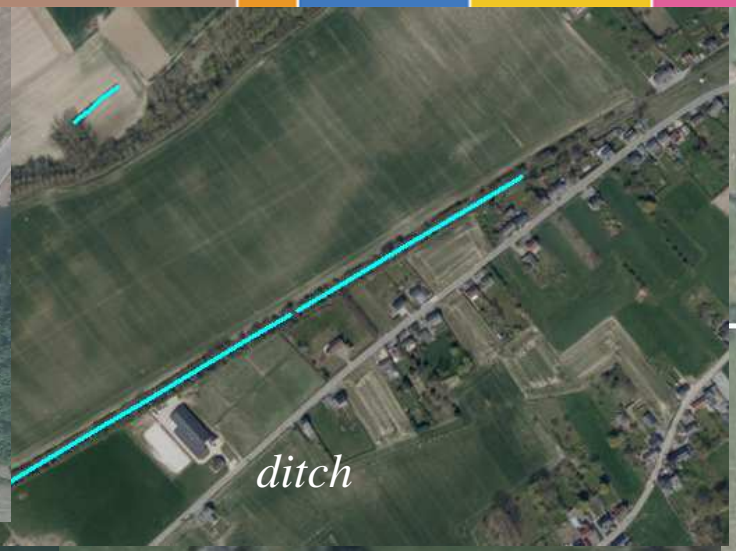
- **LF layer becoming an integral part of the LPIS**
  => Consolidation and updating from different sources: aerial orthophotos, applications, satellite imagery, DTM/DSM LIDAR, checks, rapid field visits ...

- **Overview of the layers**

3 kinds of geometries:

- surfacic (groups of trees + ponds)
- linear (hedges + trees in line + ditches)
- isolated (isolated trees + bushes)

-Planimetric reference: aerial orthophotos



DGO 3

DIRECTION GÉNÉRALE OPÉRATIONNELLE
DE L'AGRICULTURE, DES RESSOURCES NATURELLES ET DE L'ENVIRONNEMENT

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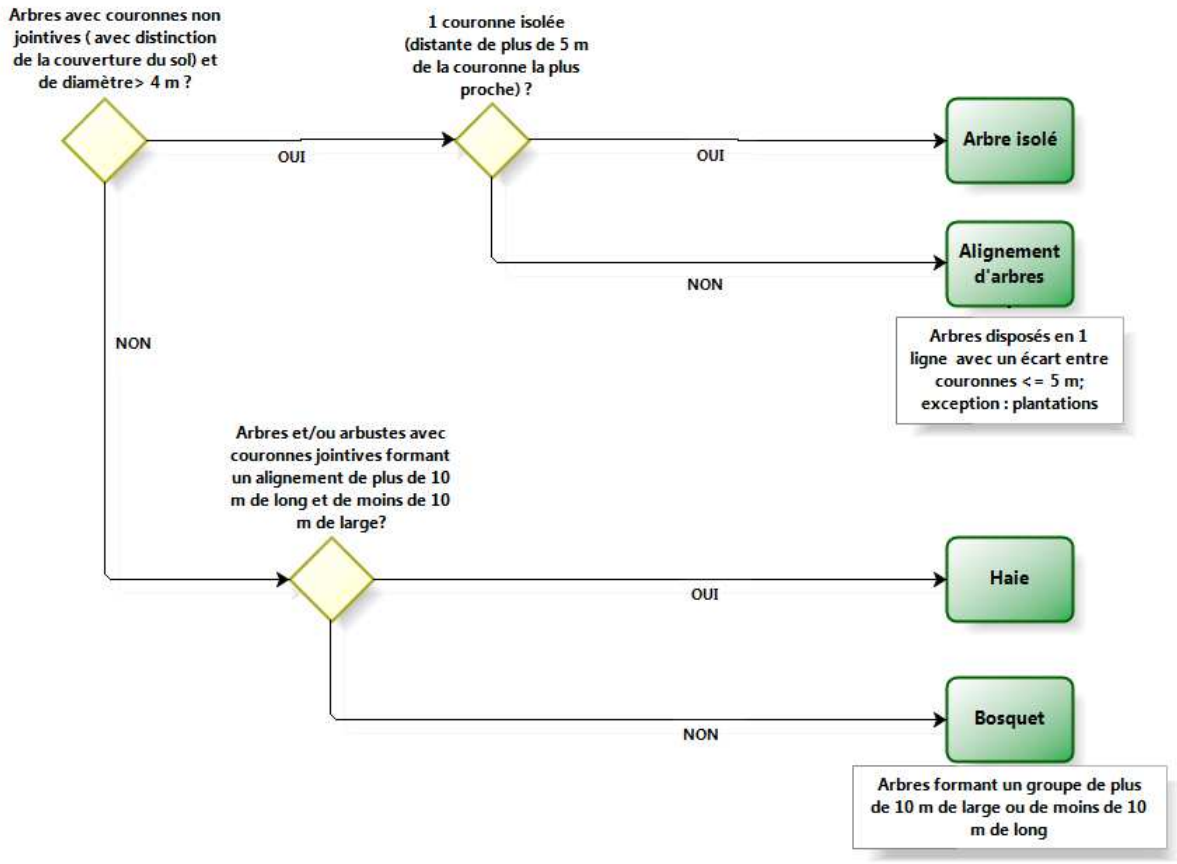
Definition LF: Illustration

DICHOTOMIC KEY FOR WOODED FEATURES



Group of trees

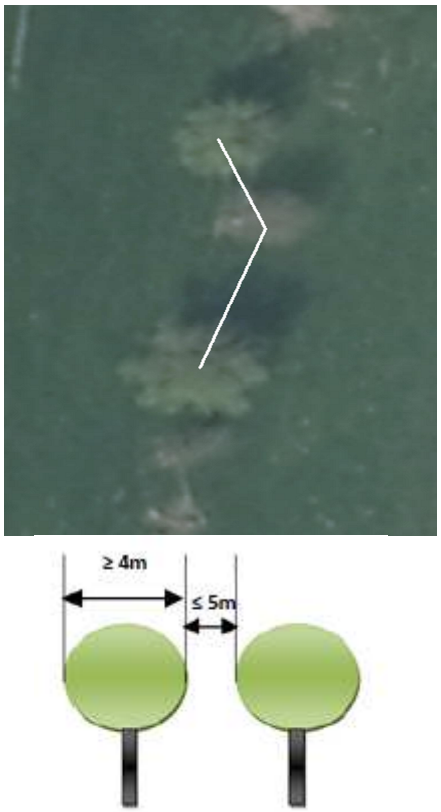
Geometry

Definition:

At least 3 trees

Maximum size: 30 ares

Trees in line



Geometry

Definition:

Crown diameter ≥ 4 m and space between crown limits ≤ 5 m.

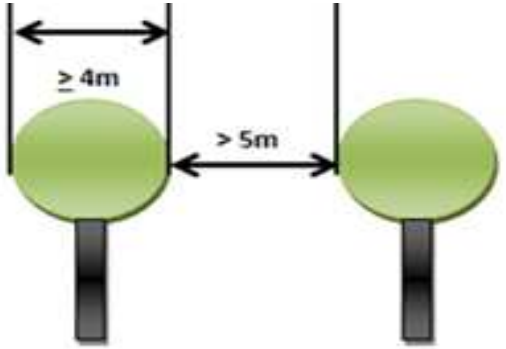
Minimum length: 10m

Isolated tree

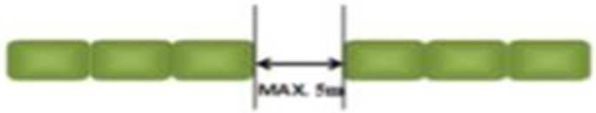
Geometry

Definition:

Crown diameter ≥ 4 m and space between crown limits > 5 m.

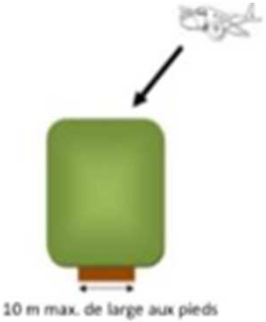


Hedge



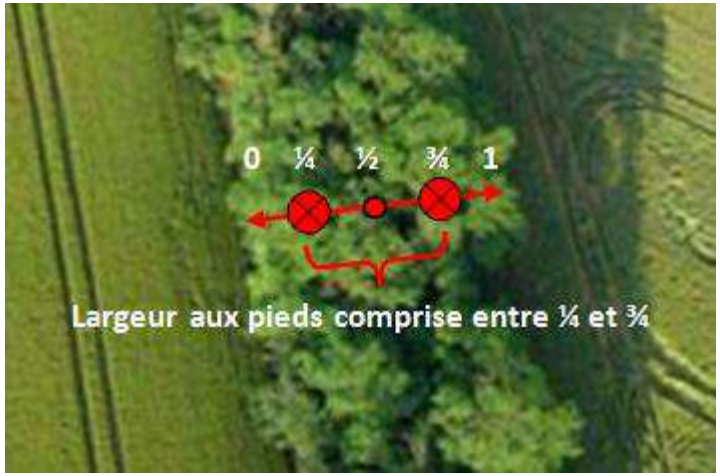
Geometry

Definition:
Width ≤ 10 m (ground level) and length ≥ 10 m; gaps of 5 m max.



Hedge

Illustrative picture for the methodology used for the width estimation at the level of ground of a hedge by photo-interpretation:



Isolated schrub

Geometry

Definition:
Space between crown limits > 5 m

Pond

Geometry

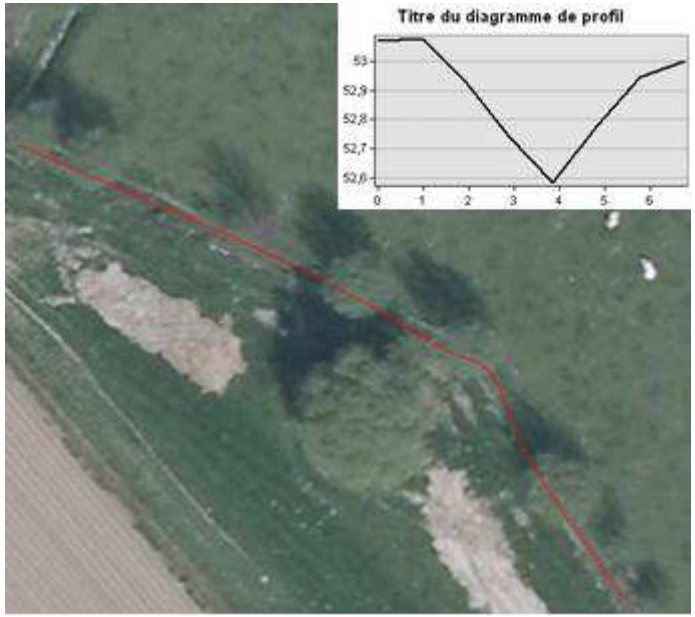
Definition:

Minimum size: 25 m² of water

Maximum size: 1000 m²

Ditches

Geometry



Definition:

Width ≤ 2 m.

2- CURRENT USE: ADMINISTRATIVE CONTROL

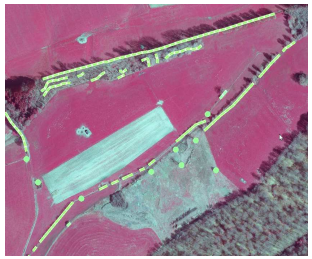
Data used:

- Aid applications
- LF layers
- Aerial orthophotos
- LIDAR products: DTM et DSM
- Satellite images
- Google Map
- OTSC data and RFV data
- NGI

-

Administrative and OTSC controls of aid applications (LPIS)

Aid applications

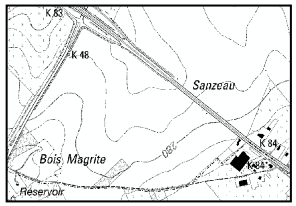


LF layers

On The Spot Check (OTSC)

Orthoimagery renewal

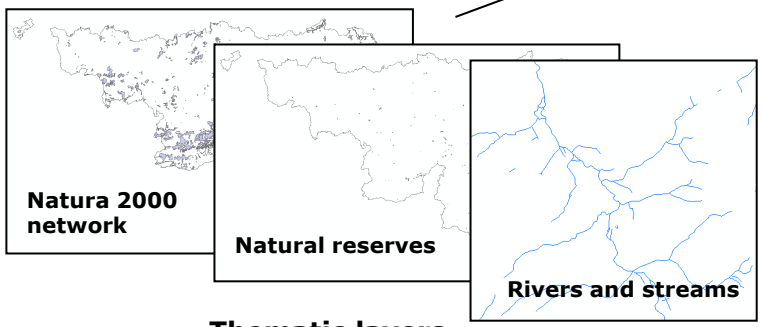
Satellite images



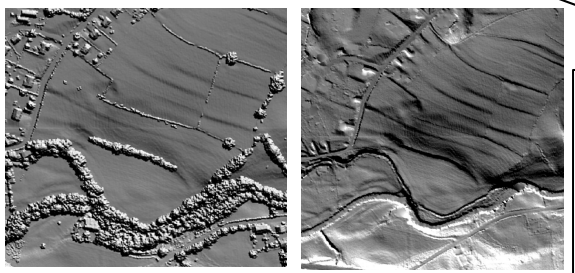
NGI topographic maps

LF

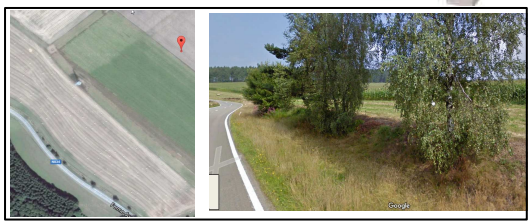
In situ observations



Thematic layers



DTM & DSM (LIDAR)



Google

Administrative and OTSC controls of aid applications (LPIS)

- **2015: creation of the layers**
- **Following years:**
  - Update parcel by parcel, LF by LF
  - not automatic --> by hand

Encountered difficulties - farmers' mistakes

a) Example: Wood edges declared as hedges

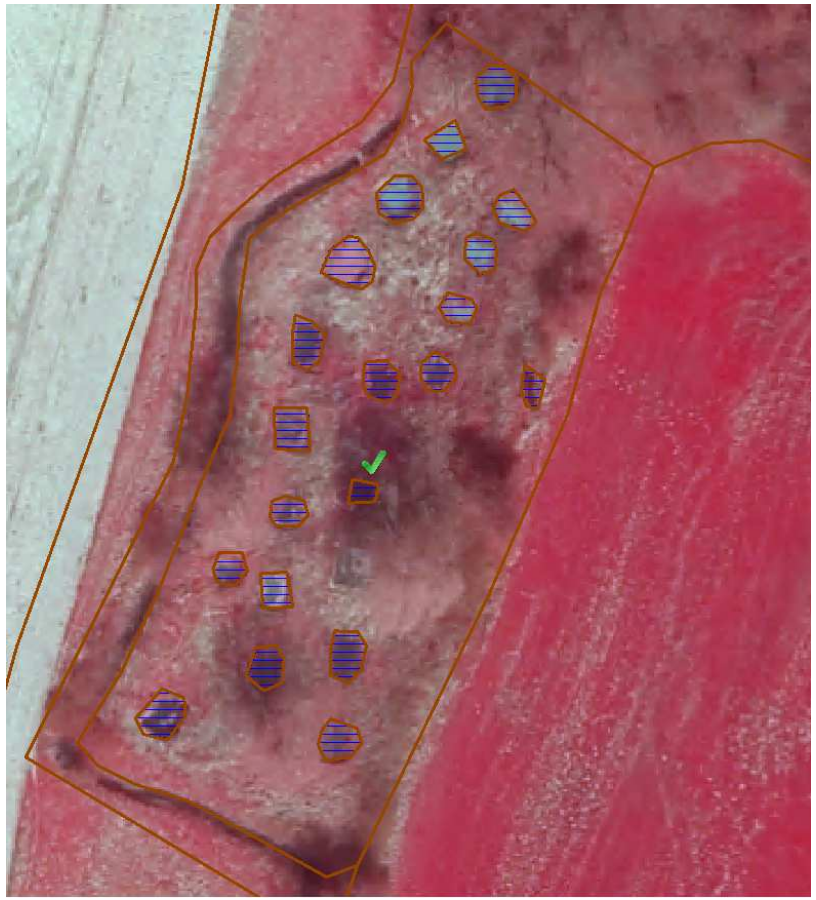
Encountered difficulties - farmers' mistakes

b) Example: Non-compliance with the definition (hedges >< group of trees)

Administrative and OTSC controls of aid applications (LPIS)

Encountered difficulties - farmers' mistakes

c) Example: Non-compliance with the definition and badly positioned elements by the farmer



Administrative and OTSC controls of aid applications (LPIS)

Encountered difficulties - farmers' mistakes

c) Example: Difficulties in implementing and understanding of definitions

Farmers aid application

Administrative and OTSC controls of aid applications (LPIS)

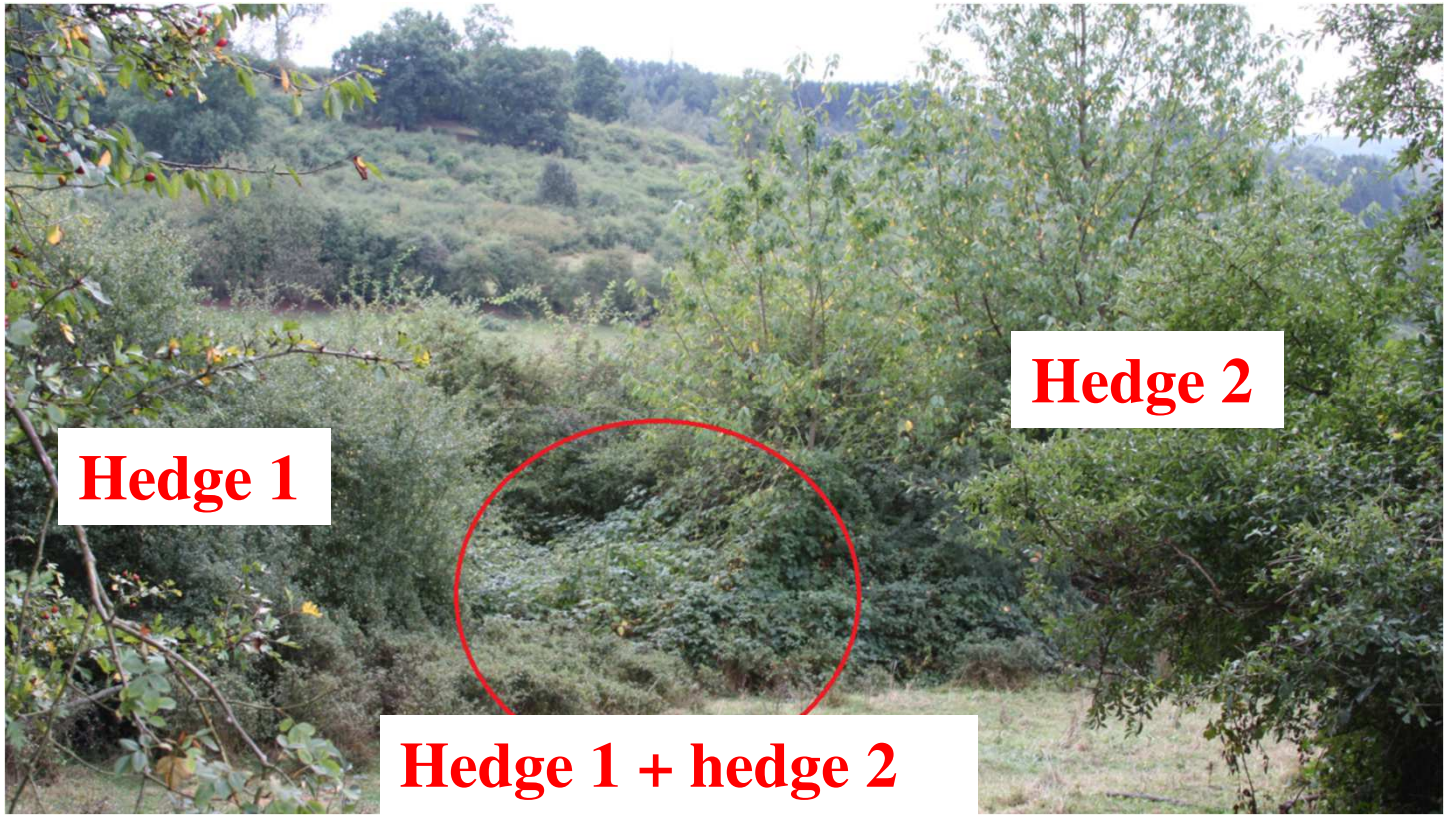
Encountered difficulties - farmers' mistakes

c) Example: Difficulties in implementing and understanding of definitions

LF layers

3- MAINTENANCE OF THE LANDSCAPE FEATURES

Natural evolution of the LF => changing of categories
=> maintenance needed => administrative burden



4- LF LAYERS AND C21 AND O32: EXPECTED ISSUES

- **Inconsistency between:**
  - Indicator C21: SWOT
    - **Total agricultural area (reference parcels)**
  - Indicator O32: monitoring indicator
    - **Hectares paid (agricultural parcels declared)**

→Compare C21 and O32 not relevant

→The evolution over time of these 2 indicators may be different according to the ratio of total declared area VS reference parcel area

→Expected communication issues with stakeholders

LF layers	LF number (in agricultural area + 1,75 m buffer
Isolated trees	279 360
Hedges – Trees in line (length >= 10 m)	510 204
Groups of trees (Area: >= 1 are et <10 ares)	3 592
Ponds (Area: <10 ares)	5 920
Ditches	92 044
	891 120

MAIN DIFFICULTIES

- **No automatisation of the LF evolution => huge administrative burden**

  Yearly cycle:

  – submission of the LF to the farmers via the GSAA

  – Reception of the aid applications from the farmers

  – Processing of the changes (from the applications and from the field) BUT **new technologies are not appropriate to update the reference LF**

MAIN DIFFICULTIES

- **Buffer strips: not included in the LF layers (measures issues: single line instead of polygon for the water course)**
- **Gaps in the hedges: changing over the time and not so easy to appreciate**
- **Issue conversion of lines and points in areas (using EFA conversion factors?)**

MAIN DIFFICULTIES

- **Issue of the adjacency: overestimation**

Hedge relevant from the agricultural field or from the garden ?

Is the ditch really from the agricultural field?

OTHER DIFFICULTIES: GAEC 9

- **LF data at farmer level**
  - →how to attribute each LF to one individual farmer?
  - →Different greening because all LF are considered for the GAEC 9 and no only declared LF

OTHER DIFFICULTIES: GAEC 9

- **Hypothesis:**
  - The producers should validate the reference layer at the level of each farm => administrative burden
    - **But skills required at farmer level**
    - **Time-consuming consideration for payment agencies**
    - **Expert support needed, but too expensive: not adapted**