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## **The Land Parcel Identification System: a useful tool to determine the eligibility of agricultural land – but its management could be further improved**



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Special Report

## **The Land Parcel Identification System: a useful tool to determine the eligibility of agricultural land – but its management could be further improved**

(pursuant to Article 287(4), second subparagraph, TFEU)

The ECA's special reports set out the results of its performance and compliance audits of specific budgetary areas or management topics. The ECA selects and designs these audit tasks to be of maximum impact by considering the risks to performance or compliance, the level of income or spending involved, forthcoming developments and political and public interest.

This performance audit was produced by Audit Chamber I — headed by ECA Member Phil Wynn Owen — which specialises in sustainable use of natural resources. The audit was led by ECA Member Nikolaos Milionis, supported by Ioulia Papatheodorou, head of private office; Kristian Sniter, private office attaché; Helder Faria Viegas, principal manager; Jan Huth, head of task, and Ramona Bortnowschi, deputy head of task. The audit team consisted of Marius Cerchez, Jindrich Dolezal, Blanka Happach, Christine Kleinsasser, Sven Kölling, Ioannis Papadakis, Roberto Resegotti, Bruno Scheckenbach and Maciej Szymura, auditors. Language support was provided by Tom Everett and Michael Pyper; secretarial assistance by Monika Schmidt.



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### **Reply of the Commission**

**Administrative checks:** Formalised and automated checks carried out by paying agencies on all applications in order to verify eligibility and detect any irregularities.

**Agricultural activity:** (i) Production, rearing or growing of agricultural products and keeping animals for farming purposes, (ii) maintaining an agricultural area in a state which makes it suitable for grazing or cultivation or (iii) carrying out a minimum activity, as defined by Member States, on agricultural areas naturally kept in a state suitable for grazing or cultivation.

**Agri-environment-climate measures:** Agri-environment-climate measures are among the most important rural development measures in terms of financial allocation from the European Agricultural Fund for Rural Development and are aimed at delivering environmental and climate-related public benefits.

**Agricultural area:** Any area taken up by arable land, permanent grassland and permanent pasture, or permanent crops.

**Agricultural parcel:** A continuous area of land, declared by one farmer, which includes no more than one crop group.

**Basic Payment Scheme (BPS):** Agricultural scheme operated on the basis of payment entitlements allocated to farmers in the first year of application of the scheme and activated each year by farmers.

**Cross-compliance:** A mechanism that obliges farmers, in order to receive the full amount of payments, to respect a set of basic rules on environmental, public and animal health, animal welfare and/or land management.

**Declared area:** Total area declared (by all farmers) on a reference parcel and used for further processing by the paying agency.

**Ecological Focus Area (EFA):** Area designated pursuant to Article 46 of Regulation (EU) No 1307/2013<sup>1</sup> to bring about benefits for the environment, improve biodiversity and maintain attractive landscapes. EFAs may include landscape features, buffer strips, afforested areas, fallow land, areas with nitrogen-fixing crops etc.

**Estimated level of error:** Our annual best estimate of the error affecting a class of payments. It is calculated based on the results of tests carried out on a representative sample of transactions. It is expressed as a percentage of erroneous payments in the total value of payments. This percentage lies, with 95 % probability, within a confidence interval defined by a lower and an upper limit.

**European Agricultural Guarantee Fund (EAGF):** This fund provides funding for direct payments to farmers, the management of agricultural markets and a number of other purposes, such as veterinary and plant health measures, food programmes and information activities.

**European Commission's Directorate-General for Agriculture and Rural Development (DG Agriculture and Rural Development):** DG Agriculture and Rural Development is responsible for implementing agriculture and rural development policy including farm support, market measures, rural development, quality policy, financial and legal matters, analysis and evaluation, and for international relations relating to agriculture.

<sup>1</sup> Regulation (EU) No 1307/2013 of the European Parliament and of the Council of 17 December 2013 establishing rules for direct payments to farmers under support schemes within the framework of the common agricultural policy and repealing Council Regulation (EC) No 637/2008 and Council Regulation (EC) No 73/2009 (OJ L 347, 20.12.2013, p. 608).

**European Commission's Joint Research Centre (JRC):** The European Commission's in-house science service which employs scientists to carry out research and provide independent scientific advice and support for EU policy. The 'MARS unit' within the JRC develops and updates the quality assessment (QA) methodology.

**Executable Test Suite (ETS):** A collection of test cases (the quality elements) that are intended to be used to test the LPIS to show that it has a specified set of behaviours.

**Field visits:** Ad-hoc visits to the field undertaken as part of an LPIS update or QA for clarification where picture interpretation is not sufficient to assess the extent to which a reference parcel is eligible.

**Geospatial aid application (GSAA):** A pre-established aid application form and the corresponding graphic material for farmers, provided through a computerised geographical information-based interface as referred to Article 72(3) of Regulation (EU) No 1306/2013<sup>2</sup>, which is used for processing spatial and alphanumerical data on areas declared.

**Grasses or other herbaceous forage:** All herbaceous plants traditionally found in natural pastures or normally included in mixtures of seeds for pastures or meadows in the relevant Member State, regardless of whether or not these are used for grazing animals.

**Integrated Administration and Control System (IACS):** An integrated system that consists of databases of holdings, applications, agricultural areas and payment entitlements (in those Member States applying the Single Payment Scheme). These databases are used for administrative cross-checks on all aid applications for most EAGF measures (e.g. single payment scheme, single area payment scheme or other direct payments).

**Land Parcel Identification System (LPIS):** A geographic information system that allows the IACS to geo-locate, display and spatially integrate its constituent data, as referred to in Article 70 of Regulation (EU) No 1306/2013 and Article 5 of Regulation (EU) No 640/2014<sup>3</sup>. It contains diverse spatial data sets from multiple sources which together form a record of all agricultural areas (reference parcels) in the relevant Member State and the maximum eligible areas under different EU aid schemes in Pillars 1 and 2 of the CAP. LPISs comprise alphanumerical and graphic elements.

**LPIS QA control zone:** Randomly chosen zone used for the QA inspection, where up-to-date national ortho-photo or very high resolution remote sensing data is available.

**LPIS layer:** The visual representation of a geographic dataset in any digital map environment. Conceptually, a layer is a stratum of the geographic reality in a particular area.

<sup>2</sup> Regulation (EU) No 1306/2013 of the European Parliament and of the Council of 17 December 2013 on the financing, management and monitoring of the common agricultural policy and repealing Council Regulations (EEC) No 352/78, (EC) No 165/94, (EC) No 2799/98, (EC) No 814/2000, (EC) No 1290/2005 and (EC) No 485/2008 (OJ L 347, 20.12.2013, p. 549).

<sup>3</sup> Commission Delegated Regulation (EU) No 640/2014 of 11 March 2014 supplementing Regulation (EU) No 1306/2013 of the European Parliament and of the Council with regard to the integrated administration and control system and conditions for refusal or withdrawal of payments and administrative penalties applicable to direct payments, rural development support and cross compliance (OJ L 181, 20.6.2014, p. 48).

**LPIS update:** LPIS activities undertaken by Member States to record changes to land over time, e.g. by drawing the correct parcel boundaries, determining the degree of eligibility of agricultural land, delineating ineligible areas, defining pro-rata categories for each reference parcel affected etc. It also includes LPIS activities undertaken by the Member States to ensure that their LPISs complies with the latest regulatory and technical requirements.

**Maximum eligible area (MEA):** The number of potentially eligible hectares under a particular aid scheme or support measure. In the context of the LPISs, the MEA is capped by, among other factors, the reference area of the reference parcel.

**On-the-spot check:** Verification carried out by the paying agency's inspectors of the legality and regularity of area-aid transactions, involving a visit to the applicant's premises or a review of recent satellite images of parcels (i.e. remote sensing). Such checks are to be conducted systematically and on an annual basis on a certain sample of agricultural holdings. For major schemes and their terms, e.g. for the basic payment scheme, the single area payment scheme or most rural development measures, 5 % of all relevant beneficiaries are subject to on-the-spot checks.

**Ortho-imagery:** Ortho-rectified (corrected for distortion) photographs, pictures and other images taken from airborne or satellite platforms.

**Paying agency:** A Member State body responsible for managing agricultural subsidies.

**Permanent grassland and permanent pasture (together referred to as 'permanent grassland')**: Land that is used to grow grasses or other herbaceous forage naturally (self-seeded) or through cultivation (sown) and that has not been included in a holding's crop rotation for at least five years. It may include other vegetation which can be grazed, such as shrubs and/or trees, provided that the grasses and other herbaceous forage remain predominant. At the discretion of the Member State in question, the definition may also include land which can be grazed and as part of established local practices but where grasses and other herbaceous forage are traditionally not predominant in grazing areas.

**Quality assessment (QA):** An annual exercise in which Member States or regions test their LPIS data reliability on the basis of certain quality elements. The QA methodology is developed and refined by the JRC. The results of the exercise are monitored by DG Agriculture and Rural Development.

**Quality element (QE):** One of six specific components used in QA to assess the quality of an LPIS and identify its weaknesses (Article 6 of Regulation (EU) No 640/2014).

**Reference parcel:** A geographically delimited area with a unique identification field, registered in the identification system for agricultural parcels referred to in Article 70 of Regulation (EU) No 1306/2013, with a default value of potentially eligible hectares under a particular aid scheme or support measure.

**Statement of Assurance (SoA):** The result of an annual financial and compliance audit exercise in which we examine the reliability of the EU's accounts and the regularity of the transactions underlying them. The findings and conclusions of the Statement of Assurance are published in our annual report.

A Land Parcel Identification System (LPIS) is an IT system based on aerial or satellite photographs recording all agricultural parcels in the Member States. It is a key control mechanism under the Common Agricultural Policy (CAP) designed to verify eligibility for area-based subsidies, which amounted to approximately 45.5 billion euro in 2015. The Court's Statement of Assurance (SoA) estimated the level of error for the European Agricultural Guarantee Fund (EAGF) at 2.9 % (2.2 % without cross-compliance errors) in 2014. Close to half of the errors were area-related. The system also increasingly plays a role in checking compliance with various environmental obligations. In the 28 Member States, there are currently 44 national or regional LPISs in operation, containing over 135 million reference parcels.

We examined whether the LPISs were well managed by Member States and adequately monitored by the Commission. Audit visits were made to the Commission and five Member States (covering six LPISs). We also sent a survey to all the Member States.

We concluded that the LPIS is a useful tool for determining the eligibility of agricultural land but its management could be further improved. Over recent years our SoA results showed that action plans and financial corrections addressed LPIS shortcomings in the Member States affected. Some room for improvement remains, in particular:

- We identified some weaknesses in LPIS processes affecting the Member States' ability to reliably check the eligibility of land. While LPIS ortho-imagery was mostly up-to-date, photo-interpretation was not always reliable or conclusive. In some of the LPISs additional information concerning ownership and lease rights was included in order to ensure that each parcel had been declared by the right farmer. In addition, Member States did not analyse the cost-effectiveness of their LPISs in order to better design the related checks.
- We found that Member States had made progress in upgrading their LPISs to meet the 2014-2020 CAP requirements. However, LPISs had not yet been completely adapted for greening. Some efforts by the Commission to simplify the CAP had had mixed results.
- Through improved LPIS-related guidance, regular audits and follow-up of Member States' action plans and financial corrections, the Commission's performance of its monitoring role has improved. However, the reliability of the yearly quality assessment (QA) exercise on the effectiveness of the LPISs in the Member States was undermined by weaknesses in the applied methodology and insufficient checks and follow-up by the Commission.

## IV

Following our audit observations, we recommend that:

- (a) Based on a quantified cost-benefit analysis and an assessment of risks, the Member States should strengthen their efforts to increase data reliability (by enhancing the update process, clarifying the use of the pro-rata option and checking whether land is at the farmer's disposal).
- (b) With the support of the Commission, the Member States should develop and set up a framework for assessing the cost of running and updating their LPISs to measure the performance of their LPISs and the cost-effectiveness of system improvements.
- (c) The Member States should ensure that, using their LPISs, they reliably identify and register, and then effectively monitor, ecological focus areas, permanent grassland and new categories of land.
- (d) The Commission should re-examine the current LPIS legal framework in order to simplify and streamline some of the rules for the next CAP period.
- (e) The Commission should carry out a cost-benefit analysis in order to determine whether the representativeness of QA samples could be improved so that a better coverage of the population of parcels in the LPIS can be achieved.
- (f) The Commission should improve its monitoring of QA results by analysing any inconsistencies in QA reporting, following them up, providing feedback to the Member States and ensuring that remedial action plans are prepared and executed when needed.

## Background

### 01

The Common Agricultural Policy (CAP) finances, via the European Agricultural Guarantee Fund ('EAGF'), direct payments to farmers and measures to respond to market instabilities or environmental challenges ('Pillar 1'). The CAP also co-finances rural development programmes within the EU Member States ('Pillar 2') via the European Agricultural Fund for Rural Development (EAFRD). The reformed CAP for the 2014-2020 period strives to achieve better targeted, more equitable and more environmentally friendly – 'greener' – direct aid payments.

### 02

To ensure that payments are regular, the CAP relies on the Integrated Administration and Control System (IACS), a set of comprehensive administrative and on-the-spot checks on subsidy applications, which is managed by the Member States. The Land Parcel Identification System (LPIS) is a key component of the IACS. It is an IT system based on ortho-imagery (aerial or satellite photographs) which records all agricultural parcels in the Member States. It serves two main purposes: to clearly locate all eligible agricultural land contained within reference parcels and to calculate their maximum eligible area (MEA). The LPIS is used for cross-checking during the administrative control procedures and as a basis for on-the-spot checks by the paying agency<sup>4</sup>.

### 03

The LPISs were originally devised for checks relating to area-based aid, which currently<sup>5</sup> represents payments of up to 40 billion euro for CAP Pillar 1<sup>6</sup> and of around 5.5 billion euro for CAP Pillar 2<sup>7</sup>. Some Member States have also used their LPISs to check whether farmers have respected some of the environmental rules under cross-compliance or area-related rural development schemes, such as agri-environment and less-favoured area support. During the 2014-2020 CAP, part of the direct aid to farmers is to be paid for agricultural practices beneficial for the climate and the environment. Some of these new greening obligations (see paragraph 35 in Part II) are to be monitored using the LPIS.

- 4 For the 2007-2013 CAP period, the core LPIS legislation is Article 17 of Council Regulation (EC) No 73/2009 of 19 January 2009 establishing common rules for direct support schemes for farmers under the common agricultural policy and establishing certain support schemes for farmers, amending Regulations (EC) No 1290/2005, (EC) No 247/2006, (EC) No 378/2007 and repealing Regulation (EC) No 1782/2003 (OJ L 30, 31.1.2009, p. 16) and Article 6 of Commission Regulation (EC) No 1122/2009 of 30 November 2009 laying down detailed rules for the implementation of Council Regulation (EC) No 73/2009 as regards cross-compliance, modulation and the integrated administration and control system, under the direct support schemes for farmers provided for that Regulation, as well as for the implementation of Council Regulation (EC) No 1234/2007 as regards cross-compliance under the support scheme provided for the wine sector; for the 2014-2020 period, it is Article 70 of Regulation (EU) No 1306/2013 and Articles 5 and 6 of Regulation (EU) No 640/2014.
- 5 According to the figures taken from the general EU budget for 2015.
- 6 Payment appropriations cover largely budget lines 05 03 01 01, single payment scheme, 28 342 million euro; 05 03 01 02, single area payment scheme, 7 806 million euro and integral parts of 05 03 01 03 to 05 03 03, Other direct aids, totalling 4 328 million euro overall (redistributive payment, specific programme for outermost regions, area aid for cotton and partially specific support (Article 68)).
- 7 The area-related rural development schemes within budget line 05 04 Rural development account for roughly half of the payment appropriations of 11 162 million euro.

## LPIS specifications

### 04

The LPIS operates on the basis of reference parcels. A reference parcel is a uniquely identified and geographically delimited agricultural area<sup>8</sup>. Farmers are expected to carefully examine each map and to identify and exclude from their applications all unfarmed land, and ineligible features on parcels, such as buildings, farmyards, scrub, roadways, forests, lakes, etc.

<sup>8</sup> See Articles 2(25) and 5(1) of Regulation (EU) No 640/2014 as well as Article 4(1)(e) of Regulation (EU) No 1307/2013.

### 05

The LPIS's technical specifications vary from one Member State to another as various types of reference parcel exist (see **Table 1**). A brief description of the main types is given below.

Table 1

#### Characteristics of the reference parcel types

	Agricultural parcel	Cadastral parcel	Farmer's block	Physical / Topographical block
<b>Main features</b>	<ul style="list-style-type: none"> <li>- Single crop group</li> <li>- Single farmer</li> </ul>	<ul style="list-style-type: none"> <li>- One or more farmers</li> <li>- Based on ownership</li> <li>- One or more crop groups</li> </ul>	<ul style="list-style-type: none"> <li>- Single farmer</li> <li>- One or more crop groups</li> <li>- No natural boundaries</li> </ul>	<ul style="list-style-type: none"> <li>- One or more farmers</li> <li>- Area bordered by certain features (ditches, hedges, walls, etc.)</li> <li>- One or more crop groups</li> </ul>
<b>Main data source</b>	Farmer's application	Cadastre, land register	Farmer's application	Administrative classification

Source: European Court of Auditors and European Commission (JRC).

## Introduction

### 06

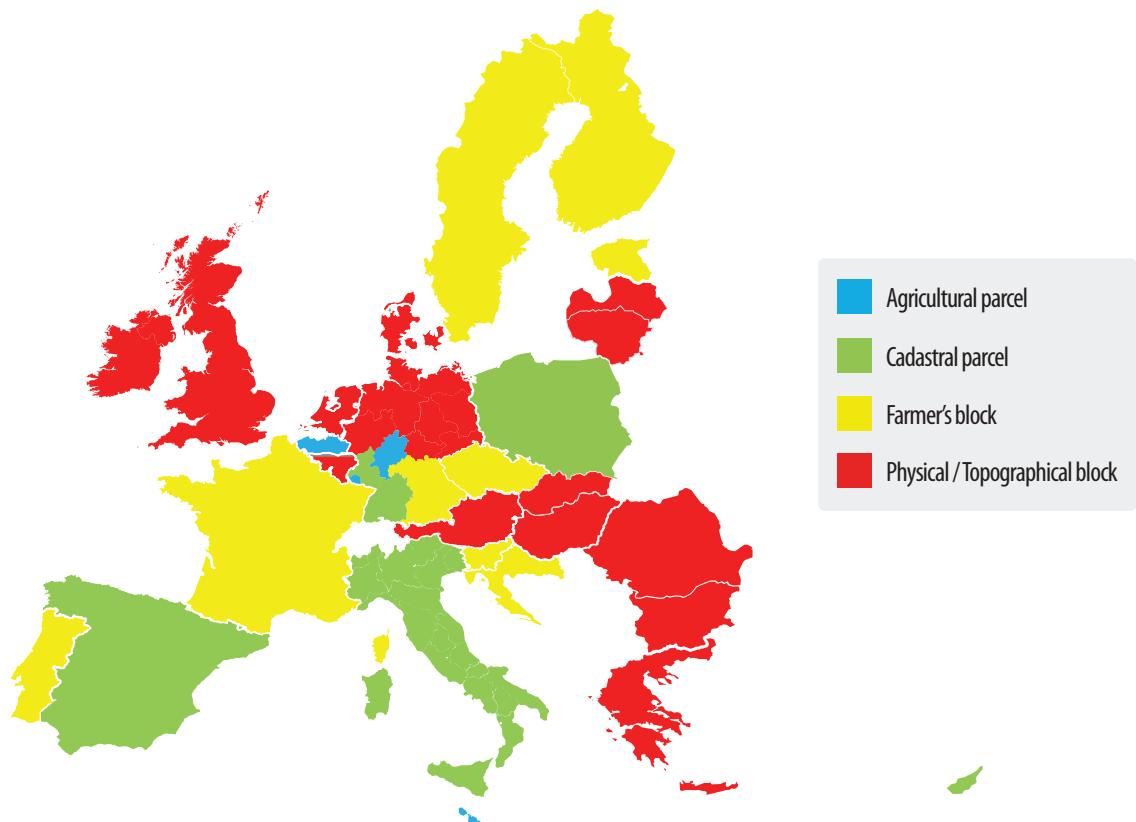
Belgium, Germany, and the United Kingdom have an LPIS for each region. All other EU Member States have one each covering the whole country. There are currently 44 LPISs in total, containing over 135 million reference parcels (see **Figure 1**).

### 07

The LPISs are managed by the Member States, which are responsible for the quality of the data entered in their systems. The Commission plays a monitoring role. It provides guidance and support to the Member States, audits the effectiveness of their LPISs, may apply financial corrections if there are failures in the LPIS checks and follows-up on action plans. The Commission has also established the LPIS quality assessment (LPIS QA), which requires Member States to annually test the quality of their LPISs.

Figure 1

#### LPISS by type across the EU



Source: European Court of Auditors based on the 2014 and 2015 LPIS Quality Assessment Reports.

# Audit scope, objectives and approach

13

08

The purpose of this audit was to determine whether the Land Parcel Identification System implemented under the Common Agricultural Policy was fit for purpose.

09

We sought to answer the overall audit question:  
**Is the Land Parcel Identification System (LPIS) well managed?**

10

In order to answer this question, we checked whether the LPIS allowed Member States to reliably check the measurement and eligibility of land claimed by the farmers (**Part I**), and whether the systems were being adapted to meet the requirements of the 2014-2020 CAP, in particular those concerning greening obligations and the need to simplify the implementation of the policy (**Part II**). Finally, we examined whether the Commission was adequately fulfilling its monitoring role (**Part III**).

11

We carried out the audit between July 2015 and April 2016. It included visits to the European Commission and to five Member States (Austria, Germany (Saarland and North Rhine-Westphalia), Ireland, Poland and the United Kingdom (Scotland)). These Member States were selected on the basis of the amounts paid out there, their reference parcel system and on recent audit coverage by both us and the Commission. In each Member State, we carried out interviews, analysed procedures and data, and tested a sample of parcels to check the reliability of the data stored in the system. In total, over 400 reference parcels were checked on-screen<sup>9</sup> in the presence of the national authorities, of which more than 100 were visited on-the-spot<sup>10</sup>. This sample was selected on a risk basis to identify possible areas for improvement of the LPISs.

12

Furthermore, we sent a survey to the Member States covering all 44 different LPISs, in order to obtain key data and information on their set-up and implementation. In addition, we conducted a documentary analysis of previous audit findings by us and the Commission, as well as a review of previous studies. Further desk reviews were carried out to analyse additional information on the LPISs implemented by Member States or regions that were not visited during the audit. Finally, we held interviews with Commission officials and examined relevant documents in this context.

<sup>9</sup> This figure does not include all the reference parcels analysed on screen in North Rhine-Westphalia. Here the audit team had unlimited access to a read-only version of the LPIS before, during and after the audit visit.

<sup>10</sup> The scope of the on-the-spot visits included mainly the assessment of both the correct determination of the eligible agricultural area and the coherence between the information registered in the related LPIS with the actual status of the reference parcel.

# Part I

## Despite good achievements in the implementation of the Land Parcel Identification Systems, room for improvement remains

### 13

In order to serve the intended purpose, LPIS data needs to be up-to-date, reliable and complete for administrative checks to be effective. Member States need to regularly update their ortho-imagery and correctly assess it. In cases where photo-interpretation is inconclusive, Member States should consider, based on an assessment of risks and costs of further controls, carrying out visits to the parcels concerned in order to correctly determine their maximum eligible area. All information relevant for assessing land eligibility should be included in the LPIS. With the support from the Commission, Member States also need to collect LPIS performance information, in order to weigh the cost of further improvements against the expected benefits.

<sup>11</sup> The EAGF estimated level of error without cross-compliance was 2.2% in 2014.

### Good achievements in the implementation of the LPISs

### 14

We have regularly examined the implementation of LPISs in the Member States in the context of our annual Statement of Assurance. Provided the graphical information included in an LPIS is properly updated and analysed, the LPIS makes a significant contribution to preventing and detecting area-related errors in aid applications. Thanks to improved guidance issued by the Commission (see paragraphs 57 to 59) and to action plans put in place by the Commission and the Member States (see paragraphs 60 to 61), the reliability of data in their LPISs has been constantly improving over recent years. Remedial actions have resulted in ineligible areas being excluded from the LPIS in several Member States and substantial financial corrections have been imposed by the Commission (see paragraphs 62 to 64).

### 15

As part of the Statement of Assurance exercise, we annually estimate the level of error for the EAGF. In 2014, based on the 183 transactions audited, we estimated it at 2.9 %<sup>11</sup>. The figure was close to but above the materiality threshold of 2 %. Area-related errors accounted for 44 % of the estimated 2014 EAGF error rate. Half of these errors were less than 2% and thus had only a limited impact on the overall estimated level of error.

### Ortho-imagery was mostly up-to-date

### 16

Member States must regularly update their LPISs in order to be able to check that farmers are only paid for eligible agricultural area. Given the potential for natural or anthropogenic changes to parcels, Member States mainly focus their efforts on frequently supplying new ortho-imagery and promptly entering it into their LPIS. This is necessary in order to ensure that the system reliably and correctly reflects the site-specific conditions.

## Part I - Despite good achievements in the implementation of the Land Parcel Identification Systems, room for improvement remains

### 17

Outdated ortho-imagery carries with it the risk of LPIS data no longer being accurate. The Commission has recommended that, in principle, the LPIS dataset should be updated over a 3-5 year period<sup>12</sup>, so that the system contains a reflection of the situation on the ground. For a significant portion of parcels in Scotland, we found that the LPIS photos were not always renewed every five years (see **Box 1**).

<sup>12</sup> DG Agriculture and Rural Development, 2014 Annual Activity Report, Final report, Annex 10, Part 3.2, ABB 03: 'It is therefore necessary to keep the LPIS up to date, and in order to do so, Member States should consider a constant refresh of the ortho-imagery over a 3-5 year period depending on the evolution of the terrain (via human intervention or absence thereof).'

### Box 1

#### Example of outdated ortho-imagery in the LPIS

In **Scotland**, we came across photos that had been taken in 2008 and 2009, and were therefore over seven years old. The authorities estimated that over 35 000 of the parcels in the LPIS (6.9 % of the total) had been photographed before 2010.

### 18

During the audit, we identified good practices as regards the regular acquisition of LPIS ortho-imagery e.g. in Austria, Germany (North Rhine-Westphalia and Saarland) and Poland.

### 19

Certain Member States have made specific efforts to introduce the new set of ortho-imagery on a timely basis. In 2015, North Rhine-Westphalia even entered into its LPIS ortho-photos that have been taken in spring of that same year (as 'provisional digital aerial photographs'). Such prompt action helps to keep the system up-to-date and reduces the number of time-consuming and laborious recoveries in the event of changes in the eligibility of land. In addition, historical ortho-photos are stored in the system and can be displayed to reveal the earlier state of an LPIS reference parcel.

## Part I - Despite good achievements in the implementation of the Land Parcel Identification Systems, room for improvement remains

### 20

We found also cases of longer delays in new ortho-imagery being entered into the LPIS. In Austria, this exercise took more than a year. In Scotland there were also significant delays<sup>13</sup> in updating the LPIS, due mainly to the shortage of staff for photo-interpretation but also to delays in receiving new ortho-imagery from the contractor.

### Photo-interpretation was not always reliable or conclusive

### 21

Apart from regularly renewing the ortho-imagery, systematic and accurate interpretation of the new ortho-photos is critical in order to ensure that eligible agricultural area is correctly recorded and ineligible area correctly excluded in the LPIS. Only if national authorities are able to correctly interpret the photos they receive will they be able to perform reliable administrative checks on farmers' applications. The Commission recommends that once new ortho-imagery is received, national authorities should conduct photo-interpretation in a systematic way. One paying agency we visited (Saarland's), had no such systematic picture interpretation process in place.

### 21

Our audit confirmed<sup>14</sup> that photo-interpretation undertaken during LPIS updates was not always reliable, resulting in incorrect maximum eligible areas (MEAs) being recorded in the respective LPISs. Specifically, areas or clearly ineligible features were incorrectly delineated (see **Box 2**).

13 For the 2014 flights, out of 160 000 parcels covered, only 90 000 had been processed by October 2015.

14 In this context see also our 2014 Annual Report and, in particular, recommendation 1 of chapter 7: 'the Member States make further efforts to include reliable and up-to date information in their LPIS databases on the size and eligibility of agricultural land, notably of permanent pasture, and systematically analyse and use all the information available in the context of administrative checks, including up-to-date orthoimages, in order to avoid payments for ineligible land' (OJ C 373, 10.11.2015).

## Part I - Despite good achievements in the implementation of the Land Parcel Identification Systems, room for improvement remains

### Box 2

#### Examples of incorrect assessment of MEA which could have been identified by photo-interpretation

##### Ineligible area incorrectly assessed

In **Saarland**, we identified parcels that were recorded as being fully eligible, when in fact it was obvious from the newly acquired photos that they were mostly ineligible (overgrown).



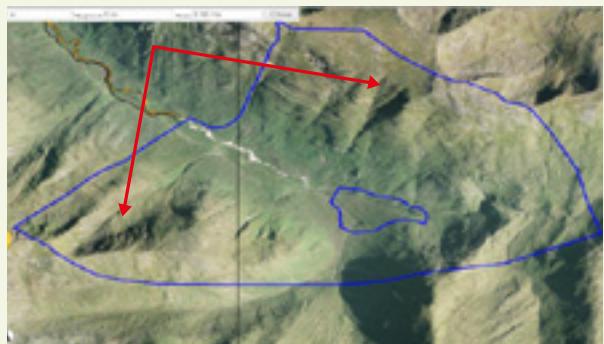
Image in the Saarland LPIS



Situation found on-the-spot

Source: European Court of Auditors

In **Scotland**, we identified ineligible areas incorrectly registered in the LPIS. The LPIS contained a reference parcel partially covered by steep slope and rocky land without green cover as being completely eligible. The red arrows indicate some of the problematic areas.



© Scottish Paying Agency

## Part I - Despite good achievements in the implementation of the Land Parcel Identification Systems, room for improvement remains

### Box 2

#### Ineligible features not properly excluded

In **Austria**, a lake was incorrectly delineated. The parcel also included a house in the maximum eligible area.



© Austrian Paying Agency (AMA)

In **Ireland**, a parcel was assigned a maximum eligible area of 1.4 ha in the LPIS after the farmer had submitted a change in the area, despite the fact that the parcel included the farmyard and a shed and was thus fully ineligible.

We found other examples in **North Rhine-Westphalia** of weaknesses in determining the correct maximum eligible area.

Sometimes, photo-interpretation alone is not sufficient to accurately assess the eligibility of land on ortho-photos. In the case of arable land or plain grassland, photo-interpretation can, in general, reliably identify the eligible area to be registered in the LPIS. This is, however, not always the case for specific types of grassland, such as grazed woodland or alpine pasture (see **Box 3**).

## Part I - Despite good achievements in the implementation of the Land Parcel Identification Systems, room for improvement remains

### Box 3

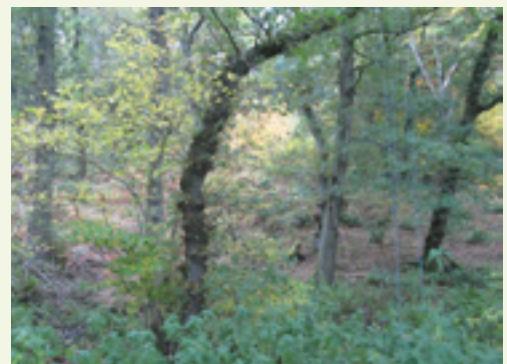
#### Photo-interpretation alone is not always conclusive

In **Scotland**, we found parcels that had been claimed for as grazed woodland (see the LPIS image on the left), but were in fact ineligible for payment as either not grazed or not grazable at all because there was no grass underneath (see the LPIS image on the right). This could only be confirmed during an on-the-spot visit. The parcels were incorrectly included in the maximum eligible area and had been granted payment in the past.



Image in the Scottish LPIS

© Scottish Paying Agency



Situation found on-the-spot

Source: European Court of Auditors

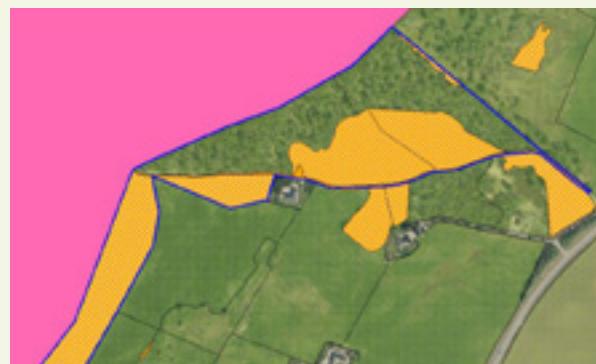
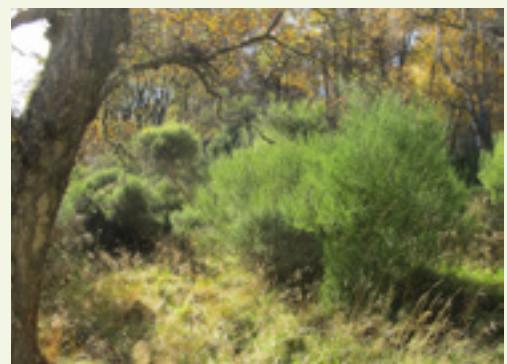


Image in the Scottish LPIS:

© Scottish Paying Agency



Situation found on-the-spot

Source: European Court of Auditors

## Part I - Despite good achievements in the implementation of the Land Parcel Identification Systems, room for improvement remains

### Box 3

In certain cases, the eligibility of the parcel depends on whether or not there is grass underneath trees or other vegetation, e.g. fern, gorse or bracken. In extreme cases, as confirmed in **Ireland**, this could drastically change an eligibility assessment, but cannot be captured by photo-interpretation.



**Bracken with grass underneath  
(eligible or partially eligible in Ireland)**

Source: European Court of Auditors



**Bracken with no grass underneath  
(not eligible in Ireland)**

Source: European Court of Auditors

We found other examples of weaknesses concerning grassland parcels in **Austria** and **North Rhine-Westphalia**.

### 24

Where doubts exist as to whether parcels – especially grassland – are actually being used for agricultural purposes, some Member State authorities undertake field visits as part of the update process to support their on-screen photo-interpretation. We noted efforts in this regard in Austria (alpine pastures) and Scotland, but also a sizeable backlog of such visits in the latter region (over 76 000 land-review visits), which had been scheduled in order to ensure that the information in the LPIS was up to date but had not yet been carried out, mainly due to a lack of resources.

### 25

While ad-hoc field visits are the only method for ensuring accuracy when photo-interpretation is not conclusive, they come at a cost. Their number and scope should therefore be carefully planned by weighing the cost of additional accuracy against the expected benefits in terms of regularity of payments.

## Part I - Despite good achievements in the implementation of the Land Parcel Identification Systems, room for improvement remains

### Pro-rata was not always applied reliably

#### 26

Member States have the option of using a pro-rata system in their LPISs for permanent grassland reference parcels containing both eligible agricultural land and ineligible natural features such as scrub, trees, rocks, bushes or rushes. In order to determine the eligible area within reference parcels, Member States establish different ranges of eligibility percentages, which impact the payment accordingly<sup>15</sup>. This is to serve the purpose of simplifying the determination of eligible area on parcels where the exact eligibility rate is not self-evident. Man-made constructions such as buildings, permanent streets or concrete walls do not fall into this category but have to be exempted and delineated in the LPIS before applying pro-rata.

#### 27

Under the pro-rata system, photo-interpretation or automatic assessments, without any reflection or, where necessary, confirmation on the spot, is generally not sufficient to reliably determine the correct eligible areas. During our audit, we visited a number of alpine parcels in Austria<sup>16</sup> and commonages in Ireland<sup>17</sup> for which a pro-rata assessment had been made. We observed on-the-spot that national inspectors and/or photo-interpreters found it difficult to consistently delineate parcels, apply the range of eligibility coefficients and establish individual eligibility percentages (see **Box 4**). National authorities had not built appropriate risk management strategies such as comprehensive and illustrative pro-rata catalogues with clear description and assessment criteria for each range, field visits in all doubtful cases or complementary technical tools to resolve these difficulties in a satisfactory manner.

#### 28

The Commission recommends that Member States should take great care when assessing grasslands with an eligibility coefficient of below 50 %, as it bears a high risk of error<sup>18</sup>. In Austria, a system was implemented for calculating the area of mountain pastures, which are strewn with trees, stones and other debris. Both the Austrian and the Irish pro-rata systems allowed for low eligibility coefficients (see **Box 5** for an example related to Austria).

15 Article 10 of Commission Delegated Regulation (EU) No 640/2014.

16 Five alpine pastures in the regions of Niederösterreich, Steiermark, Salzburg and Oberösterreich.

17 Four commonage parcels in Ireland, which are typically larger pieces of pastureland owned by more than one person. Each shareholder owns a notional share of the total area.

18 JRC, Technical guidance on the pro rata system for permanent grassland, DS-CDP-2015-06 final.

## Part I - Despite good achievements in the implementation of the Land Parcel Identification Systems, room for improvement remains

### Box 4

#### Example of incorrect pro-rata assessments, revealing the limitations of LPIS imagery

In **Ireland**, a grassland parcel covered partially with bushes, trees, fern and heather recorded in the LPIS as being 90 % eligible, was assessed during the audit visit as being only 70 % eligible, meaning that part of the payment might have been overstated.



Image in the Irish LPIS

© Irish Paying Agency (DAFM)



Situation found on-the-spot

Source: European Court of Auditors

### Box 5

#### Example of parcels with low eligibility coefficients

A woodland reference parcel shown below, with little grass cover underneath the trees, was recorded in the **Austrian** LPIS as being 21 % eligible. On-the-spot, we found that the rate was overstated.



Image in the Austrian LPIS

© Austrian Paying Agency (AMA)



Situation found on-the-spot

Source: European Court of Auditors

## Part I - Despite good achievements in the implementation of the Land Parcel Identification Systems, room for improvement remains

### Semi-automated detection tools were being tested, but were not yet operational

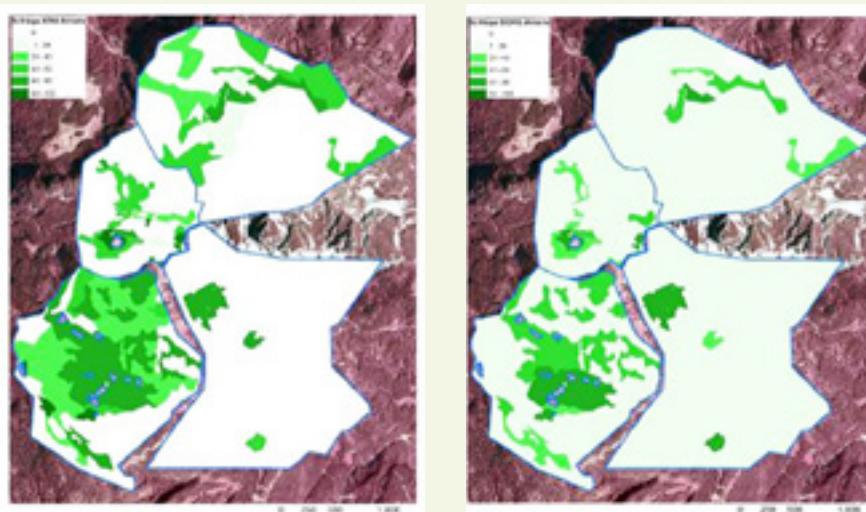
#### 29

One way to mitigate the risk of incorrectly registering eligible area in an LPIS and to achieve more objective results is to develop and apply automatic change-detection tools. Based on ortho-imagery, software may help to perform photo-interpretation by identifying shapes, objects, textures or relations to adjacent segments. Member States such as Austria and Ireland were giving consideration to a range of such tools for LPIS data interpretation. While testing is not yet conclusive (see **Box 6**), we acknowledge their interest in making continuous improvements to data reliability and using innovative techniques, in order to both improve reliability and reduce administrative costs.

#### Box 6

##### The results achieved by semi-automatic detection tools in Austria

In **Austria**, a study was recently conducted to test the reliability of a semi-automatic detection tool developed by the University of Natural Resources and Life Sciences in Vienna. Comparing the results for eligible areas registered in the Austrian LPIS (left image) with those determined by means of a semi-automatic detection tool (right image) reveals significant differences.



Source: ©Atzberger, C., 'The current capabilities of (semi-)automatic determination of pasture grazing areas using remote sensing', Vienna 2014.

## Part I - Despite good achievements in the implementation of the Land Parcel Identification Systems, room for improvement remains

### Information on whether the land is actually at the farmer's disposal was included in some LPISs

#### 30

Farmers need to have the claimed area at their disposal (e.g. through ownership or lease rights) in order to be entitled to any agricultural payment. If farmers are not asked to provide evidence of legal rights on the land they claim, then there is the risk that they are paid for land that it is not at their disposal, such as public land or private land belonging to other entities. Though not required by the EU legislation, we consider it good practice to complement the LPIS, whenever feasible and cost-effective, with information on whether the parcels are at the farmer's disposal, which would enable Member States to cross-check such information against aid applications, as we found in Scotland (see **Box 7**).

#### Box 7

##### Good practice with regard to verification of evidence of the right to use the land

In **Scotland**, any declared change in ownership or of the right to use parcels must be supported by appropriate background documents signed by both parties to the transfer. Similarly, all newly declared parcels must be supported by a document proving the right to use the land. The Scottish LPIS contains information about land ownership and/or tenancy agreements.

#### 31

The remaining four audited Member States do only occasionally require farmers to provide evidence of ownership, lease or any other rights on the land they claim, and therefore cannot always be sure whether the reference parcels registered in their LPISs are fully and legally at the farmer's disposal. We found cases in Austria and North Rhine-Westphalia where parts of parcels adjoining woodland or at roadsides were not at the disposal of the farmer but had nonetheless been declared and paid. The relevant information from the land register, already incorporated into the LPIS, had not been used as an additional source of information.

## Part I - Despite good achievements in the implementation of the Land Parcel Identification Systems, room for improvement remains

### Insufficient information for fully assessing the cost-effectiveness of implementing the LPIS

#### 32

The LPIS's main functions are to locate, identify and quantify agricultural land. As described in paragraphs 16 to 29, Member States put significant financial resources into establishing, running and updating their LPISs. We therefore attempted to gather LPIS cost information from Member States and the Commission. Member States were not able to provide reliable and comparable cost information. They had difficulties in quantifying the overall investment cost of their LPISs, their annual running costs and the cost of specific features, such as the LPIS update process or the different LPIS layers or QA. The Member States are therefore not in a position to assess the cost-effectiveness of system improvements.

#### 33

The Commission has information on setting up LPISs in new Member States and information on imagery costs. However, the Commission had not requested information on running costs from the Member States, nor provided guidance on how to produce it in a reliable and comparable way. The Commission is therefore not able to assess adequately the costs associated with new system requirements or policy developments.

## Part II

### The Land Parcel Identification System was being upgraded to meet the requirements of the CAP reform

#### 34

An upgrade of the Member State LPISs is needed in order to meet the new requirements of the 2014-2020 CAP. The changes relate mainly to the new mandatory greening requirements which tie an additional 30 % on top of the basic payment to certain practices which are potentially beneficial for the climate and the environment throughout the EU. We analysed the extent to which the LPIS can serve to monitor these greening requirements. In that context, we also examined the voluntary inclusion in their LPISs by some Member States of certain landscape features protected under cross-compliance and rural development. Furthermore, because one of the Commission's key priorities is simplifying the CAP in order to achieve better results through less complicated rules, we also analysed the Commission's efforts in this respect.

19 Regulation (EU) No 1307/2013.

#### The adaptation of LPISs by Member States for greening was progressing but was not yet complete

#### 35

The new 2014-2020 Common Agricultural Policy (CAP) introduced 'green direct payments'. In order to receive these payments, farmers are required to maintain permanent grassland, apply crop diversification and dedicate a share of arable land to ecological focus areas (EFA)<sup>19</sup> (see **Figure 2**).

#### 36

While the LPIS can be an effective tool for monitoring permanent grassland and some ecological focus areas (see paragraphs 37 to 41), it is less so for requirements of a more temporary nature such as crop diversification (see **Figure 2**). Thus, LPIS is not an appropriate tool to allow the paying agency to administratively check whether crop diversification has actually taken place.

## Part II - The Land Parcel Identification System was being upgraded to meet the requirements of the CAP reform

Figure 2

### Greening: a basic overview

#### 30 % of the direct payment envelope for applying three basic practices:

- **Maintaining permanent grassland**

- ✓ ban on ploughing in designated areas
- ✓ national/regional ratio with a 5 % flexibility margin

- **Crop diversification**

- ✓ at least 2 crops when the arable land of a holding exceeds 10 hectares
- ✓ at least 3 crops when the arable land of a holding exceeds 30 hectares
- ✓ the main crop may cover at most 75 % of arable land, and the two main crops a maximum of 95 % of the arable area

- **Maintaining an 'ecological focus area' of at least 5 % of the arable area of the holding**

- ✓ only applies to farms with more than 15 hectares of arable land
- ✓ ratio may rise to 7 % after a Commission report in 2017 and a legislative proposal
- ✓ EFAs may include: field margins, buffer strips, fallow land, landscape features, afforested areas, terraces, areas with catch crops, green cover and nitrogen-fixing crops, short rotation coppices, agri-forestry, strips of land along forest edges

**Equivalence:** Member States may decide that, instead of applying these three practices, farmers can undertake practices considered equivalent (e.g. crop rotation instead of crop diversification).

Source: European Commission.

## Part II - The Land Parcel Identification System was being upgraded to meet the requirements of the CAP reform

### Weaknesses in Member States' determination of permanent grassland

37

Permanent grassland has been widely recognised for its positive environmental effects and should be protected. It is land that is used to grow grass or other herbaceous forage either naturally (self-seeded) or through cultivation (sown) and that has not been included in the holding's crop rotation for at least five years<sup>20</sup>. Restrictions are placed, by law, on converting permanent grassland back into arable land. In order to avoid a substantial decline, Member States are required to ensure that the ratio of permanent grassland areas to the total agricultural area declared by farmers does not decrease by more than 5 %<sup>21</sup>.

38

We identified an example of good practice in Saarland where an LPIS sub-layer made it possible to trace and monitor the transition of individual parcel components to permanent grassland at the smallest possible level, for example in cases of parcel divisions or mergers. However, in the other five Member States / regions visited, there were risks that changes to existing permanent grassland or land which is supposed to become permanent grassland might go undetected due to inappropriate monitoring and incomplete source data in the LPIS (see **Box 8**).

### The EFA layer was currently under development by Member States

39

According to the new legislation, Member States have to register all permanent ecological focus areas in a layer in their LPISs by 2018, in order to check whether farmers have complied with their obligation to generally maintain at least 5 % of their land as ecological focus areas<sup>22</sup>.

40

The graphic material supplied to beneficiaries from the 2016 claim year onwards must indicate the type, size and location of the EFAs determined during the previous year, including those that are non-permanent<sup>23</sup>. To comply with this provision, Member States will need to have a basic EFA layer in place in their LPISs before 2018. A Commission guidance paper requests that, from the first year (2015), the EFA layer should contain all potential EFAs chosen by the Member State which are expected to remain stable for at least three years<sup>24</sup>. The Commission's interpretation is intended to ensure that the EFA layer is gradually built up in order to be fully operational by 2018.

- 20 Article 4(1)(h) of Regulation (EU) No 1307/2013.
- 21 Article 45(2) of Regulation (EU) No 1307/2013.
- 22 For the purpose of calculating this percentage, landscape features for example are not counted with their area as such, but are weighted and converted into hectares.
- 23 Article 17(4) of Commission Implementing Regulation (EU) No 809/2014 of 17 July 2014 laying down rules for the application of Regulation (EU) No 1306/2013 of the European Parliament and of the Council with regard to the integrated administration and control system, rural development measures and cross compliance (OJ L 227, 31.7.2014, p. 69).
- 24 DG Agriculture and Rural Development; EFA layer guidance document (DSCG/2014/31 final rev1).

## Part II - The Land Parcel Identification System was being upgraded to meet the requirements of the CAP reform

### Box 8

#### Weaknesses in the monitoring of permanent grassland

The type of agricultural land needs to be monitored year by year using the LPIS, in order to decide whether arable land has become permanent grassland, which is the case if, for five years or more, it has generally been used to grow grass and other herbaceous forage, despite having been ploughed up and seeded with another variety of herbaceous forage.

##### Traceability of the 5-year conversion period not ensured

In **Austria**, if reference parcels are transferred between farmers or change in size, their links to the previous years are lost. As a consequence, the status of the land in the LPIS can no longer be reliably identified and potential permanent grassland remains undetected. The same applies in **Poland** and **Scotland**, as these LPISs do not include information on the age of non-permanent grassland (e.g. second or third year of grass cover). The authorities are therefore unable to keep track of grassland parcels to ensure that they are re-registered in the LPIS as permanent grassland after the end of the five-year cycle. A similar situation exists in **Ireland**.

##### Exact location of permanent grassland not referenced in the LPIS

In **North Rhine-Westphalia**, it is not generally possible to distinguish between permanent grassland and arable land within a reference parcel. As farmers' drawings of agriculturally-used area, which were part of the application for support, were not transferred into the LPIS, the exact shape of permanent grassland and potential permanent grassland could not be tracked.

## 41

In our survey, a majority of Member States / regions (26 out of 44) informed us that they had already fully implemented the EFA layer in their LPISs, and the other 18 were on course to do so by 2018, as required by the Regulation. The digitisation of all permanent ecological focus areas on or adjacent to arable land is being phased in by the Member States visited. However, Scotland has not yet digitised any EFAs in its LPIS and North Rhine-Westphalia has not correctly determined the EFA categories and their sizes in all cases, leading to miscalculations, since the coefficients are different for certain elements such as hedges or field copses, for example<sup>25</sup>. In Ireland, when introducing the EFA layer with the permanent landscape features into the LPIS, the authorities decided to use a different set of information from that used by the National Mapping Agency for locating EFA elements such as hedges and drains. As this layer does not technically match the current Irish LPIS layer, boundaries and polygons of the EFA elements in the LPIS are shifted, making it challenging to locate them exactly.

25 See Annex X of Regulation (EU) No 1307/2013; e.g. 1 m of hedge (conversion factor 5 and weighting factor 2) counts for 10 m<sup>2</sup> ecological focus area, while 1 m<sup>2</sup> of a field copse (weighting factor 1.5) counts for only 1.5 m<sup>2</sup>.

## Part II - The Land Parcel Identification System was being upgraded to meet the requirements of the CAP reform

### Weaknesses in the registration of landscape elements protected under cross-compliance or the agri-environmental scheme

#### 42

The protection of EFAs is a continuation of other policies or instruments to promote a more environmentally-friendly agriculture such as cross-compliance or agri-environment-climate measures within the framework of rural development. As part of these rules, Member States have defined standards for the protection of environmentally sensitive areas and certain types of landscape elements (such as bushes, trees, buffer strips or field copses).

#### 43

The current EU legal framework does not oblige Member States to map in the LPIS landscape elements protected under cross-compliance. Nonetheless, in the ECA survey, 28 Member States / regions declared they had done so pursuant to national law. 16 Member States / regions reported that these elements were not fully registered in the LPIS. Three out of the five Member States visited registered in their LPISs landscape elements protected under cross-compliance. The correct identification and registration of such elements in the LPISs is useful in order to keep track of potential changes or instances of non-compliance including the forbidden removal or destruction of such elements over time and would provide effective support for administrative cross-checks. The same applies to Member States such as Austria, which pay agri-environment-climate aid for certain types of landscape elements. We found weaknesses as regards the correct identification and registration of such elements in the Austrian and German LPISs (see **Box 9**). The difficulties in implementing reliable landscape element layers in LPISs illustrate the challenges ahead in introducing a comprehensive and effective EFA layer.

## Part II - The Land Parcel Identification System was being upgraded to meet the requirements of the CAP reform

### Box 9

#### Examples of incorrect identification and registration of landscape elements

In **North Rhine-Westphalia**, landscape elements protected under cross-compliance were not always correctly delineated. Certain parts of the excluded landscape elements shown below (outlined in orange), such as field copses or lines of trees, were in fact eligible, while some other landscape elements of the same type remained unregistered.



© North Rhine-Westphalian Chamber of Agriculture

In **Austria**, the paying agency routinely recorded strips of forested area as landscape elements (field copse – blue triangle) even though they are a component of neighbouring forests. This generally means that the farms which cultivate the adjacent agricultural area do not have rights over them, and that they therefore do not fulfil the requirements for aid under the agri-environmental scheme.



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## Part II - The Land Parcel Identification System was being upgraded to meet the requirements of the CAP reform

### Simplification is ongoing but remains a challenge

44

Simplification is a primary goal of the Commission<sup>26</sup>. It considers simplifying the CAP to be essential in order to make the agricultural economy more competitive, preserve and create jobs and contribute to the sound development of rural areas<sup>27</sup>. In principle, simplification should also apply to the LPIS.

45

A new set of LPIS-related rules in specific Regulations<sup>28</sup> was adopted, together with the greening requirements. They include additional requirements (e.g. the obligatory geospatial aid application, more LPIS layers (see the list of obligatory LPIS layers in the **Annex I**) and options (i.e. the stability threshold, the 100-tree rule) for the Member States. Finally, the integration of new categories of eligible land presents further challenges for LPISs due to varying established local practices.

### The geospatial aid application - a useful tool

46

For the purpose of identifying all agricultural parcels used by a single beneficiary and for processing the corresponding spatial and alphanumerical data, Member State authorities must provide all beneficiaries with a pre-established geospatial application form and the corresponding graphic material by 2018<sup>29</sup>. In our LPIS survey, 33 Member States / regions told us that such a system was already in place to indicate how all aid applications intersected spatially with the information in the LPIS. In the remaining 11 Member States / regions<sup>30</sup>, such a system was not (yet) in place.

47

In principle, farmers should in the near future start submitting their aid applications using geospatial methods, i.e. the position and size of their parcels must be derived from imagery captured in the LPIS. However, as from 2018 when the system will have to be fully in place, only where beneficiaries are not in a position to do this, the national or regional authorities should provide them either with technical assistance or provide the aid-application on paper and the authorities should ensure that all declared areas are digitised.

26 See <http://www.consilium.europa.eu/en/policies/cap-simplification>.

27 See [http://ec.europa.eu/agriculture/simplification/index\\_en.htm](http://ec.europa.eu/agriculture/simplification/index_en.htm).

28 Regulation (EU) No 1306/2013 and Commission Delegated Regulation (EU) No 640/2014 and Commission Implementing Regulation (EU) No 809/2014.

29 Article 17 of Regulation (EU) No 809/2014.

30 This figure includes eight German regions.

## Part II - The Land Parcel Identification System was being upgraded to meet the requirements of the CAP reform

### 48

As our audit findings show, where it has been introduced, the geospatial aid application has significantly improved the quality of information in the LPISs (e.g. in Austria and Saarland). During administrative checks, overlaps in the geometry of reference/agricultural parcels or inconsistencies in parcel boundaries generating error codes are immediately identified. In this context, Poland, too, has already developed an electronic geospatial aid application system to allow farmers to apply online. However, in the 2015 claim year, fewer than 1 % of applications were lodged electronically as Polish farmers had a preference for traditional paper-based applications.

### The visited Member States decided not to apply the stability threshold

### 49

A new component of the 2014-2020 CAP framework is the option for Member States to not update their LPISs if the difference between the new MEA of a reference parcel and the MEA as previously assessed is below 2 % (the 'stability threshold')<sup>31</sup>. This new rule aims to simplify the administrative handling of the LPIS. However, the Commission provided guidance<sup>32</sup> to the Member States indicating that, although no update is legally required when the difference is below 2 %, it is nonetheless recommended to do so (i.e. to exclude the ineligible parts for the MEA) for any manifest changes<sup>33</sup> in the eligible area, regardless of whether the change is below the 2 % threshold. None of the Member States visited during the audit chose to use the 2 % stability threshold.

### The optional 100-tree rule - a complicated exercise

### 50

The new CAP framework contains a provision that areas with scattered trees on agricultural land are now considered eligible if there are no more than 100 trees per hectare and agricultural activities can be carried out in a similar way as on parcels without trees in the same area<sup>34</sup>. Trees which are considered 'grazable' (can be grazed) should not be counted for the 100-tree threshold. 'Grazable' trees are those which, according to the Commission's interpretation, are actually accessible in their entirety to farm animals for grazing. Our analysis confirmed that it is difficult to identify such trees by photo-interpretation which further translates into uncertainty in assessing land's (partial) eligibility for agricultural aid, and entails complication and administrative burden for Member States.

31 Article 5(3) of Regulation (EU) No 640/2014.

32 DSCG/2014/33 – final rev 3, section 3.2.

33 the appearance of an ineligible feature (ex. a newly built house).

34 Article 9(3) of Regulation (EU) No 640/2014: An agricultural parcel that contains scattered trees shall be considered as eligible area provided that agricultural activities can be carried out in a similar way as on parcels without trees in the same area; and the number of trees per hectare does not exceed a maximum density. This density shall be defined by Member States and notified on the basis of traditional cropping practices, natural conditions and environmental reasons.

## Part II - The Land Parcel Identification System was being upgraded to meet the requirements of the CAP reform

### New specifications of eligible land presented challenges for the LPIS

#### 51

New specifications and clarifications in relation to eligible land were introduced in the 2014-2020 CAP provisions. As a general rule, only agricultural land recorded in LPISs that is predominantly used for agricultural activities qualifies for the Pillar 1 payments. Eligibility is determined by the status of land (arable land, permanent grassland, and permanent crops) and by its use. Acceptable activities are agricultural production (e.g. growing of crops) or maintenance in a state which makes the area suitable for grazing or cultivation. The latter requires either that farmers carry out a regular (e.g. annual) minimum maintenance activity on this land, or that this land has certain characteristics making it suitable for grazing or cultivation. This is in principle relevant for all types of land.

#### 52

Where Member States have defined a 'minimum maintenance activity' on land not used for production, its performance is unlikely to be verifiable in the LPIS. Only areas completely overgrown for more than a limited period, thus indicating no activity, might be identifiable in the LPIS, by comparing actual photos with older information stored in the system. On the other hand, it is the duty of Member States to verify the correct status of the reference parcels affected, and, once verified, e.g. by means of on-the-spot checks, to register it correctly in their LPISs (see **Box 10**).

#### Box 10

##### Good practice for registering a minimum maintenance activity in the LPIS

In **Croatia**, a specific code is used for reference parcels on which a minimum maintenance activity is declared, designating them 'temporarily ineligible' if on-the-spot checks show that the activity has not in fact been carried out. A different code is used for areas that are permanently ineligible. This is a good solution for registering non-compliance with the minimum maintenance activity requirement in the LPIS.

## Part II - The Land Parcel Identification System was being upgraded to meet the requirements of the CAP reform

### 53

A new category of eligible permanent grassland concerns 'areas which can be grazed and which form part of established local practices and where grasses and other herbaceous forage are traditionally not predominant'. Member States must identify and define such areas and register them in their LPISs. Typically, these will be areas of limited agricultural potential consisting of heather (e.g. in Germany) or common grazing land (in Portugal), and visually they may appear to be abandoned or poorly maintained. Picture interpretation in the LPIS, as we found in Ireland and North Rhine-Westphalia, is therefore often not sufficient to accurately identify this type of land as eligible. The same applies for minimum maintenance activity (see paragraph 52). A more risk-based approach by the national authorities is required, like targeted on-the-spot visits (see also paragraphs 23 to 25) or the use of semi-automatic tools (see paragraph 29).

### Current efforts by the Commission to simplify the LPIS not yet complete

### 54

Finally, we analysed the Commission's efforts, in relation to the LPIS, to simplify the new 2014-2020 CAP framework since its introduction. Six major changes potentially affecting the LPIS were introduced in May 2015 (see **Figure 3**):

Figure 3

#### Changes introduced by the new CAP with impact on LPIS

- (a) option of a limited buffer area between the parcel boundary and an adjacent EFA, in duly justified cases
- (b) hedges or wooded strips can have gaps of up to 4 metres
- (c) a missing EFA may be compensated for by another EFA, even if the latter has not been declared
- (d) option of mapping only declared EFAs in the LPIS
- (e) changes to the identification of EFAs in the EFA layer
- (f) changes in the approach of identification of specific types of permanent grassland in the LPIS

Source: European Commission.

## Part II - The Land Parcel Identification System was being upgraded to meet the requirements of the CAP reform

### 55

According to our analysis, these changes benefit either the beneficiary (points (a) to (c)) or the paying agency (points (d) to (f)), but not necessarily both. The complexity of the rules and the procedures required to deal with changes (a) to (c) in particular has further increased the administrative burden for Member States, as it is difficult to determine the correctness of the buffer and the increased allowed gaps of up to four metres in the LPIS. Furthermore, the fact that missing or incorrectly determined EFAs can be compensated for by other EFAs makes the on-the-spot checks more time-consuming. The final verdict on farmer's compliance cannot simply be reached by analysing the information on EFAs included in the initial claim against the information in the LPIS: in cases of non-compliance, further action by the Member State authorities might be required.

## The Commission's LPIS monitoring improved but did not focus enough on LPIS performance

### 56

The Commission has an important monitoring role in relation to the LPIS, helping to ensure that the LPISs managed by the Member States are effective and efficient. Firstly, it should provide adequate support and guidance to Member States to promote consistent interpretation of EU rules and an effective monitoring of CAP payments. The Commission also regularly audits the different LPISs in the Member States and regions to gain assurance that they are functioning properly and protect the EU budget by applying financial corrections if major weaknesses are identified. The action plans drawn up to remedy these weaknesses in LPISs should also be closely followed-up by the Commission. Through the LPIS QA, the Commission should have a reliable overview of the effectiveness of the LPISs across the EU and be able to assess progress made by the Member States on any weaknesses revealed. Finally, knowledge of the cost-effectiveness of checks associated with the LPIS could help better target them where they are more efficient and better assess the implementation and control costs of new policy developments.

- 35 DG Agriculture and Rural Development: DSCG/2014/31 (EFA layer), DSCG/2014/32 (On-the-spot checks), DSCG/2014/33 (LPIS), DSCG/2014/39 (Geospatial aid applications); JRC (in conjunction with DG Agriculture and Rural Development): DS-CDP-2015-06 (Technical guidance on the pro-rata system for permanent grassland), DS-CDP-2015-11 (LPIS update) and DS-CDP-2015-10 (Management of layers).

- 36 DG Agriculture and Rural Development unit D.3 exists since January 2014.

### The Commission's LPIS-related guidance improved compared to the previous CAP period

### 57

In the previous 2007-2013 CAP period, the Commission did not establish any specific guidelines for the LPIS. This situation changed significantly for the 2014-2020 CAP, and a number of LPIS-related guidelines were issued in 2014 and 2015<sup>35</sup>.

### 58

The Commission set up a unit<sup>36</sup> devoted exclusively to the implementation of direct payments, with the aim of strengthening its guidance and support for Member States in the lead-up to implementation of the CAP reform in 2015. Especially since 2014, the Commission has intensified its provision of information to and communication with Member States, for example by holding a series of bilateral meetings, publishing material or organising regular workshops in connection with the LPIS.

### 59

While the Commission's LPIS-related guidance improved compared to the previous CAP period, it essentially focuses on aspects of legality and regularity and provides little information on how to improve the cost-effectiveness of monitoring.

## Part III - The Commission's LPIS monitoring improved but did not focus enough on LPIS performance

### Action plans and financial corrections addressed LPIS shortcomings

#### 60

Action plans (see **Figure 4**) are a tool used by the Commission to address systemic LPIS weaknesses observed at Member State level. By the end of 2015, a total of seven joint LPIS action plans had been drawn up by the relevant Member States upon the Commission's request. In addition to action plans instigated upon the Commission's request, Member States or regions may also draw up action plans on their own initiative to remedy specific weaknesses. Ten such plans have been established since 2007.

37 Article 41(2) of Regulation (EU) No 1306/2013, entering into force on 1 January 2014.

38 According to information provided by the Commission in its reply to box 7.8 of our 2014 Annual Report.

39 Belgium, Bulgaria, Spain, France, Ireland, Lithuania, Portugal and the United Kingdom.

40 Bulgaria, Greece, Spain, Italy, Portugal and Romania.

#### 61

In contrast to the 2007-2013 CAP, there is now an explicit legal basis for the action plans initiated upon the Commission's request<sup>37</sup>. The regulation stipulates that action plans must include clear progress indicators and shall be established by the relevant Member State in consultation with the Commission. The most recent action plans – for Greece, Spain, France and England – contain such indicators. In its 2015 Annual Activity Report, the Commission considers that, because France has not met key commitments in the action plan, it should take measures to address these issues and provide more detailed progress indicators. As a result of remedial actions carried out in 2014 and 2015, in Greece, the area registered as permanent pasture decreased from 3.6 million hectares to 1.5 million hectares, while in Spain the eligible agricultural land decreased from 18.4 million hectares to 15.6 million hectares<sup>38</sup>.

#### 62

Between 1999 and the end of 2015, the Commission took 49 decisions excluding from EU financing certain items of expenditure incurred by Member States under the European agricultural funds; the grounds included infringements of LPIS-related provisions. Three decisions in 2015 concerned LPIS-related infringements. In 2015, eight Member States<sup>39</sup> faced financial corrections because of LPIS-related deficiencies.

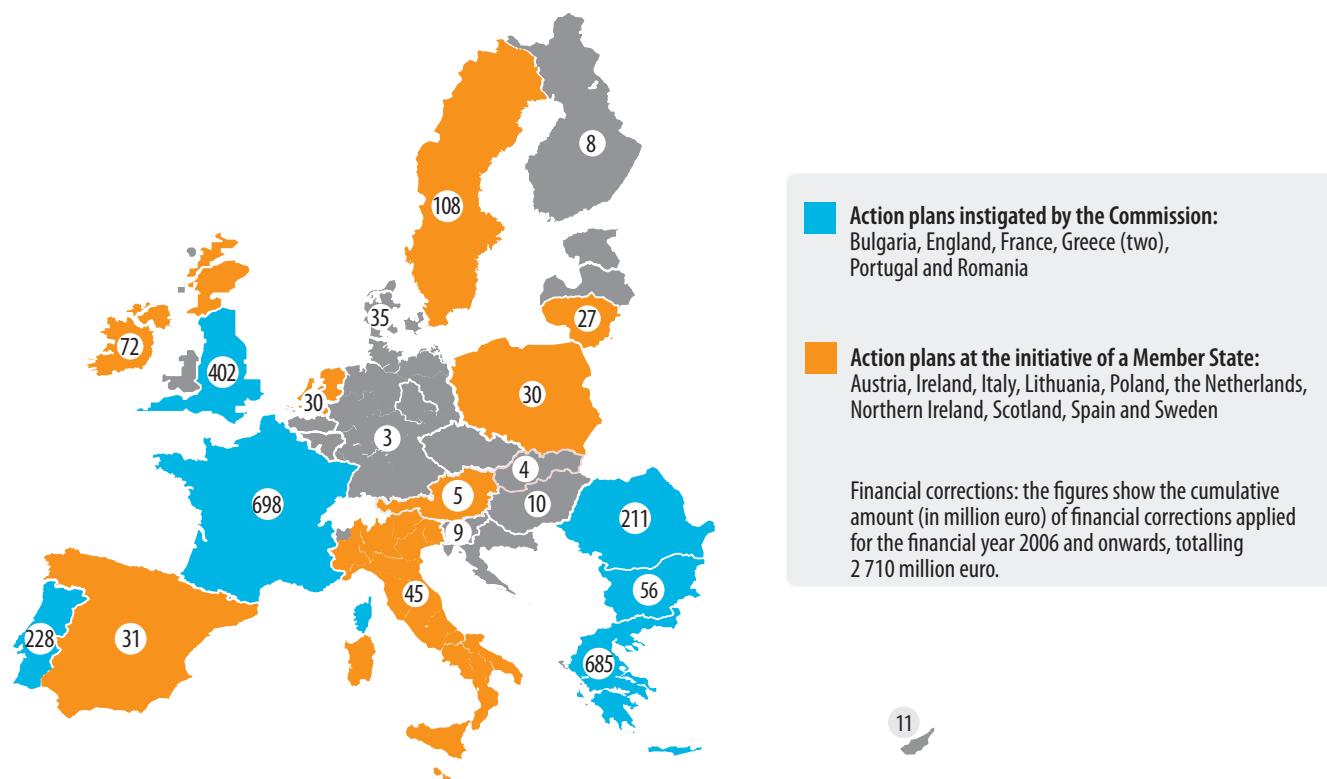
#### 63

In our 2014 Annual Report, we assessed whether a sample of six Member States<sup>40</sup> had addressed their LPIS-related shortcomings in an effective and timely manner, and whether the Commission had applied financial corrections in compliance with the legislation. In all cases examined, financial corrections had either been imposed or conformity clearance procedures launched by the Commission.

## Part III - The Commission's LPIS monitoring improved but did not focus enough on LPIS performance

Figure 4

### Overview of LPIS action plans and LPIS financial corrections since 2006



Source: European Court of Auditors based on European Commission data.

## Part III - The Commission's LPIS monitoring improved but did not focus enough on LPIS performance

### 64

However, there had often been a rather long delay between the claim year concerned and the calendar year in which the financial correction had been finally applied (see **Table 2**). The deadlines set in the regulation for the 2014-2020 CAP were designed to streamline the conformity clearance procedure.

**Table 2**

### Examples of Commission decisions from 2015 excluding from EU financing certain expenditure of relevance to the LPIS incurred by the Member States under the European agricultural funds

Member State concerned	Claim years concerned	Number of Commission decision
Bulgaria	2009	Decision (EU) 2015/103
Spain	2006, 2007 and 2008	Decision (EU) 2015/103
France	2008 and 2009	Decision (EU) 2015/103
Lithuania	2007 and 2008	Decision (EU) 2015/103
Portugal	2009	Decision (EU) 2015/1119
Ireland	2008 and 2009	Decision (EU) 2015/1119

Source: European Commission.

### The reliability of the LPIS quality assessment results was undermined by weaknesses in its methodology and application

### 65

Since 2010, following the identification of EU-wide recurrent LPIS-related weaknesses and the imposition of significant financial corrections on Member States (see paragraphs 60 to 64), the Commission introduced the LPIS quality assessment (QA)<sup>41</sup> as an obligatory tool with which Member States were asked to pro-actively identify on an annual basis any weaknesses in the system and take remedial action where necessary. The QA is intended to be a systematic and consistent review of agricultural area and certain related elements across the EU. It is based on an examination of a sample of between 500 and 1 250 reference parcels per LPIS. Currently, the QA framework comprises six quality elements (QEs) to be tested<sup>42</sup> (see **Annex II**). Changes to the QA methodology have been released annually, and multiple versions have sometimes been in circulation before a final version has been adopted. Methodological changes have varied significantly over time<sup>43</sup>.

41 The legal basis for this exercise, previously Article 6(2) of Regulation (EC) No 1122/2009, is now Article 6 of Regulation (EU) No 640/2014.

42 QE7 – 'the rate of irregularities determined during on-the-spot checks' – was removed with effect from the 2015 QA exercise.

43 These changes included e.g. the revision or refinement of key concepts and definitions (e.g. 'critical defects' in ETS 5.1), revisions in the formula for calculating a QE (e.g. QE5 to QE7 in ETS 5.1), the addition of new components of a QE (e.g. QE1 b in ETS 5.3), removal of a QE (QE7 in ETS 6.0) or a change in the numbering of QEs (inversion of QE3 and QE4 in ETS 6.0).

## Part III - The Commission's LPIS monitoring improved but did not focus enough on LPIS performance

### 66

One concern consistently raised by Member States in our LPIS survey and confirmed by the experts involved in the peer review of the QA<sup>44</sup> was the complexity of the QA methodology and the need for simplification. Our audit confirmed the difficulties faced by Member States in applying the LPIS QA methodology correctly and consistently (see **Box 11**).

44 'Peer review of the LPIS QA Framework' conducted by Sytze de Bruin (Wageningen University) and Gábor Csornai, (Consultant V4.0), November 2011.

### 67

We also identified issues in the QA's sampling approach. To provide meaningful results, the LPIS QA sample should be representative of the overall population of agricultural parcels in each Member State / region where the QA is being carried out. The regulatory framework requires Member States to carry out the QA on the basis of a sample of zones and therein, a sample of LPIS reference parcels.

### Box 11

#### Examples of incorrect or inconsistent application of the QA methodology

In **North Rhine-Westphalia**, after the 2014 QA parcel sample was established, 237 reference parcels (almost 30 % of the sample size) were corrected by the paying agency in the framework of the systematic LPIS update exercise (including the examination of the new pictures received to carry out the QA). Only then were the QA tests carried out, based on the updated information in the system. The QA results were therefore biased.

The LPIS QA methodology requires paying agencies to carry out field visits to check the situation of parcels for which photo-interpretation does not allow any conclusions to be drawn. However, only 17 of the 44 respondents to our LPIS survey stated that they carried out such visits. Certain reference parcels in **Ireland**, **Poland** and **Scotland** were not measured during the QA exercise, even though the measurement was indeed feasible and even required by the methodology.

QE4 was interpreted inconsistently. In **Poland**, the authorities did not consider that the parcels identifiable in the LPIS (i.e. digitised and given a unique identifier) could be assessed as having a critical defect. Since these conditions are prerequisites for inclusion in the LPIS, no parcel could possibly fail QE4<sup>45</sup>.

In **Ireland**, **Austria** and **Germany (Saarland and North Rhine-Westphalia)** we found a lack of proper segregation of duties between the QA staff and the staff performing the LPIS update, creating the risk of these staff analysing their own update work in the QA.

45 The other Member States visited used various reasons for failing parcels for QE4 like multi-parcels or multi-polygons; no eligible area although MEA was greater than 0; an invalid perimeter or no boundaries making it impossible to locate the parcel; more than two missing boundaries.

## Part III - The Commission's LPIS monitoring improved but did not focus enough on LPIS performance

### 68

In the QA 2010 to 2014 exercises, the zones were selected by the Member States while the reference parcels to be tested were selected by the Commission (JRC). During our visits, we identified weaknesses in the Member States' sample selection for both zones and reference parcels, affecting the representativeness and comparability of results both between different Member States and over the years (see **Box 12**).

### Box 12

#### Some weaknesses identified in QA sample selection from the 2010 to 2014 QA exercises

In all Member States visited during this audit, the QA zones were not selected from the population as a whole but rather drawn from the zones covered by remote sensing<sup>46</sup>, which only represented a small part of the territory of a Member State/region. Parcels not included in the remote sensing areas had no chance of being selected. Another issue was that the QA zones did not necessarily include all landscape types in the Member State/region (such as alpine pastures in **Austria** or commonages in **Ireland**).

In **Ireland**, the QA zones for 2013 and 2014 were not sufficiently dispersed, casting doubt on how they were selected.

<sup>46</sup> Except where a Member State or region does not use remote sensing (Austria, Scotland).

### 69

The Commission has striven to improve the efficiency of the QA sampling methodology starting from the 2015 QA exercise, and to keep costs under control. As a result, the number of QA zones used for sampling has decreased considerably. The Commission ran two statistical tests to validate the representativeness of the new sampling methodology. These confirmed that, there is no significant difference in the sample representativeness between 2014 and 2015, although, in some cases, sample representativeness had been adversely affected by the limited number of QA zones and could therefore be improved subject to a cost/benefit assessment.

## Part III - The Commission's LPIS monitoring improved but did not focus enough on LPIS performance

### The QA results were not sufficiently used to improve the quality of LPIS data

#### 70

One objective of the QA is to take remedial action when necessary. Member States are generally required to draw up remedial action plans in the absence of conformance with critical QEs. However, two of the audited Member States / regions (Ireland and Scotland) consistently failed critical QEs but produced no remedial action plans. These were not isolated cases. For 2014, the Commission noted that, of the 20 Member States or regions that should have presented a remedial action plan based on their 2014 QA results, six (30 %) did not do so.

#### 71

The Commission is responsible for monitoring the QA results. It performed plausibility checks and contacted Member States and regions where it identified obvious errors or calculation errors in their QA reports. However, the Commission (DG Agriculture and Rural Development) did not subject incoming QA results to a more thorough examination as regards the reliability of the LPIS QA or causes of non-compliance. A trend analysis of historical data for Member States and regions, an analysis of QA outliers, and an analysis by type of reference parcel were also lacking. Performing such analyses could help the Commission to spot unexplained deviations or trends in respect of the QEs.

#### 72

The Commission made a limited number of information visits to specific Member States or regions to discuss their QA results and clarify the methodology, and carried out some stand-alone QA audits<sup>47</sup>. Some LPIS QAs were covered during the Commission's regular area-aid audits<sup>48</sup>, although the QA results were not explicitly considered before selecting which Member States to visit. From the results of the 2014 QA, the JRC prepared LPIS QA screening reports for five Member States/regions<sup>49</sup> audited by DG Agriculture and Rural Development in 2015; subsequently, the JRC was invited to participate in three corresponding missions. These information visits and audits were not sufficient to gain assurance as to the reliability of the QA results received annually for all LPISs.

47 In 2014 for example in Ireland and the Netherlands.

48 In 2013, LPIS QA was covered only in Spain, Italy and Sweden. The 2014 audits covered the LPIS QA in Bulgaria, Ireland, Lithuania, the Netherlands and UK-England.

49 BE-Flanders, Denmark, Cyprus, Finland and UK-Scotland.

# Conclusions and recommendations

44

73

The information registered in LPISs – a crucial component of IACS – is the basis for correct area-based payments to farmers. It is subject to certain requirements in the CAP regulations and should function as a tool for monitoring new CAP elements. It is therefore essential that the data in the LPIS is reliable in order to ensure that payments are legal and regular. Data reliability depends on effective and efficient updates, checks and monitoring by both the Commission and Member States.

74

The audit addressed the question: 'Is the Land Parcel Identification System (LPIS) well managed?' We concluded that the LPIS is a useful tool to determine the eligibility of agricultural land but its management could be further improved.

75

LPISs, if properly updated and analysed, can make a significant contribution to preventing and detecting area-related errors in aid applications. Over recent years our Statement of Assurance results showed that action plans and financial corrections addressed LPIS shortcomings in the Member States affected. However, some areas for improvement remain.

76

In the LPIS update process, while the ortho-imagery was mostly up-to-date, the audited Member States experienced difficulties in correctly determining the maximum eligible areas of reference parcels. This happened mainly in cases where ortho-images alone did not make it possible to conclusively assess land eligibility e.g. for certain types of grassland (see paragraphs 14 to 29). In some of the LPISs additional information concerning ownership and lease rights was included in order to ensure that each parcel had been declared by the right farmer (see paragraphs 30 to 31). Member States did not evaluate the cost-effectiveness of their LPISs in order to better design the related checks. This would help to design more efficient control systems and to support any future policy impact assessments (see paragraphs 32 to 33).

## Conclusions and recommendations

### Improving processes to increase LPIS data reliability and performance measurement

#### Recommendation 1 - Improving processes to increase LPIS data reliability

Based on a quantified cost-benefit analysis and an assessment of risks, the Member States should, in the current CAP period, strengthen their efforts to increase LPIS data reliability based on timely and thoroughly conducted updates of the system. Given the complexity of pro-rata assessment, the Member States using this option should, in the current CAP period, make further efforts to develop a pro-rata catalogue with clear description and assessment criteria and to use complementary technical tools in order to increase the objectivity of ortho-imagery analysis and ensure reproducibility. Member States should also consider the possibility of recording data on ownership and lease rights in their LPIS whenever feasible and cost-effective.

#### Recommendation 2 – Measuring the cost-effectiveness of implementing the LPIS

With the support of the Commission, the Member States should, in the current CAP period, develop and set up a framework for assessing the cost of running and updating of their LPISs. This should enable the Member States to measure the performance of their LPISs and the cost-effectiveness of system improvements.

77

The LPIS provisions in the 2014-2020 CAP legal framework have increased the number of requirements that must be checked by the Member States. The adaptation of LPISs for greening is progressing, although not yet complete, and the greening payment conditions can only partially be checked using the LPIS (see paragraphs 34 to 41). Other elements beneficial for the environment, such as landscape features protected under cross-compliance, are not included in LPISs and, in cases where Member States had voluntarily decided to include them, we found cases of incorrect registration in the system (see paragraphs 42 to 43).

78

Simplification is ongoing but remains a challenge – despite the benefit of useful tools such as geospatial aid applications –, as some provisions are either not used in practice (the 2 % stability threshold) or present significant implementation challenges (the 100-tree rule or the new categories of eligible land). Current efforts to simplify the LPIS are not yet complete (see paragraphs 44 to 55).

## Conclusions and recommendations

### Tackling legal complexity more astutely

#### **Recommendation 3 – Registering permanent environmental features more reliably**

Member States should ensure that, using their LPISs, they reliably identify and register, and then effectively monitor, ecological focus areas, permanent grassland and new categories of land. They should also assess the cost versus benefits of including in their LPISs all landscape elements protected under cross-compliance or agri-environmental schemes in order to further enhance the monitoring and protection of such elements beneficial for the environment and for biodiversity.

#### **Recommendation 4 – Streamlining some LPIS-related rules in the current legal framework**

The Commission should re-examine the current legal framework in order to simplify and streamline the LPIS-related rules for the next CAP period, e.g. by re-considering the need for the 2 % stability threshold and the 100-tree rule.

**79**

The Commission's monitoring of legality and regularity in LPISs has improved compared to the previous CAP period. The Commission's audit work is comprehensive, action plans are instigated as required and financial corrections are applied (see paragraphs 56 to 64).

**80**

However, the Commission's LPIS-related guidance essentially addresses aspects of legality and regularity and does not focus on how to improve the overall effectiveness of the LPIS system. In particular, the Commission introduced the LPIS quality assessment to allow Member States to pro-actively identify possible weaknesses in the system and to take remedial action where required. It is meant to add value to the LPIS but the reliability of the QA results is undermined by weaknesses in applying the methodology (possibly due to its complexity), but also by issues in the sampling approach (see paragraphs 65 to 69). In addition, the QA results are not used effectively to improve LPIS data, as remedial action plans are not always prepared. The Commission did not make sufficient use of QA results to foster improvement in the LPISs (see paragraphs 70 to 72).

## Conclusions and recommendations

### **Redefining the Commission's focus on increasing the added value of the LPIS quality assessment for the current period**

#### **Recommendation 5 – Improving the representativeness of the QA samples**

The Commission should, before the start of the QA exercise 2017, carry out a cost-benefit analysis to determine whether the representativeness of QA samples could be improved so that a better coverage of the population of parcels in the LPIS can be achieved.

#### **Recommendation 6 – Better monitoring of QA results**

Starting in 2016, the Commission should improve the monitoring of QA results by analysing any inconsistencies in QA reporting, following them up, providing feedback to the Member States, and ensuring that remedial action plans are prepared and executed when needed. The Commission should also carry out a detailed annual trend analysis for each Member State and reference parcel type so that potential problems can be identified in good time.

This Report was adopted by Chamber I, headed by Mr Phil WYNN OWEN, Member of the Court of Auditors, in Luxembourg at its meeting of 7 September 2016.

*For the Court of Auditors*

*Vítor*

Vítor Manuel da SILVA CALDEIRA  
*President*

## LPIS layers as indicated in Article 5(1) and 5(2) of Regulation (EU) No 640/2014

- Areas taken up by arable land, permanent grassland and permanent pasture, or permanent crops (Article 4(1)(e) of Regulation No 1307/2013).
- Agricultural land with agri-environment-climate commitments (Article 28 (2) of Regulation No 1305/2013).
- Under Article 32(2)(b) of Regulation 1307/2013, areas which gave a right to payments in 2008 under the single payment scheme or the single area payment scheme laid down, respectively, in Titles III and IVA of Regulation (EC) No 1782/2003, and which:
  - (i) no longer comply with the definition of 'eligible hectare' as a result of the implementation of the Habitats Directive (92/43/EEC), the Water Framework Directive (2000/60/EC) and the Birds Directive (2009/147/EC),
  - (ii) for the duration of the relevant commitment by the individual farmer, are afforested pursuant to Article 31 of Regulation (EC) No 1257/1999, Article 43 of Regulation (EC) No 1698/2005 or Article 22 of Regulation (EU) No 1305/2013, or are under a national scheme, the term of which complies with Article 43(1), (2) and (3) of Regulation (EC) No 1698/2005 or Article 22 of Regulation (EU) No 1305/2013, or
  - (iii) for the duration of the relevant commitment by the individual farmer, are set aside pursuant to Articles 22, 23 and 24 of Regulation (EC) No 1257/1999, Article 39 of Regulation (EC) No 1698/2005 or Article 28 of Regulation (EU) No 1305/2013.
- Information determining the MEA for:
  - (i) area-related rural development measures,
  - (ii) the basic payment scheme,
  - (iii) the single area payment scheme,
  - (iv) redistributive payment,
  - (v) payments for agricultural practices beneficial for the climate and the environment,
  - (vi) payments for areas with natural constraints,
  - (vii) payments for young farmers,
  - (viii) voluntary coupled support,
  - (ix) crop-specific payments for cotton,
  - (x) the small farmers scheme,
  - (xi) POSEI (measures for the outermost regions)
  - (xii) the Aegean islands.

- Information giving the location and size of EFAs.
- Information justifying the application of specific provisions for:
  - (i) mountain areas and other areas facing significant natural or other specific constraints, as referred to in Article 32 of Regulation (EU) No 1305/2013,
  - (ii) Natura 2000 areas covered by Directive 2000/60/EC,
  - (iii) agricultural land authorised for cotton production pursuant to Article 57 of Regulation (EU) No 1307/2013,
  - (iv) areas naturally kept in a state suitable for grazing or cultivation, as referred to in Article 4(1)(c)(iii) of Regulation (EU) No 1307/2013,
  - (v) areas designated by Member States for the regional and/or collective implementation of EFAs in accordance with Article 46(5) and (6) of Regulation (EU) No 1307/2013,
  - (vi) areas notified to the Commission in accordance with Article 20 of Regulation (EU) No 1307/2013,
  - (vii) areas covered with environmentally-sensitive permanent grasslands and covered by the Habitats Directive or the Birds Directive,
  - (viii) further sensitive areas, as referred to in Article 45(1) of Regulation (EU) No 1307/2013,
  - (ix) areas designated by the Member States in accordance with Article 48 of Regulation (EU) No 1307/2013.

## QA exercise 2015 – QEs by conformance class

<b>First conformance class – to assess the quality of the LPIS</b>	QE1	The correct quantification of maximum eligible area (MEA)
	QE2	The proportion and distribution of reference parcels where the MEA takes ineligible areas into account or does not take agricultural area into account
	QE3	The occurrence of reference parcels with critical defects <sup>1</sup>
<b>Second conformance class – to identify possible weaknesses in the LPIS</b>	QE4	The categorisation of reference parcels where the MEA takes ineligible areas into account, where it does not take agricultural area into account or reveals a critical defect <sup>2</sup>
	QE5	The ratio of declared area to MEA inside the reference parcels
	QE6	The percentage of reference parcels which have been subject to change, accumulated over the years

Source: Article 6 of Regulation (EU) No 640/2014 and JRC portal<sup>3</sup>.

1 Note: QE4 before 2015.

2 Note: QE3 before 2015.

3 See [https://marswiki.jrc.ec.europa.eu/wikicap/index.php/LPISQA\\_Legacy/ETS/Decisions](https://marswiki.jrc.ec.europa.eu/wikicap/index.php/LPISQA_Legacy/ETS/Decisions).

## Executive summary

### I

The Commission considers that LPIS makes a significant contribution in preventing and reducing the levels of errors in the aid schemes to which it applies.

### III First indent

LPIS is the cornerstone of the Integrated Administrative and Control System. It is a tool which allows the majority of the administrative checks to be carried out. It helps to prevent, detect and correct errors in the early stages of the aid application processing. Moreover, the LPIS together with the GSAA strengthen the error prevention upstream and promote timely error rectification.

Notwithstanding the above, it is the Member States' responsibility to keep their LPIS up-to-date and properly interpret the ortho-imagery. The LPIS Quality Assessment (QA) methodology as developed by the Commission helps Member States to identify weaknesses related to the erroneous processing or photo-interpretation of imagery and take corrective actions.

### III Third indent

The Commission's monitoring of the LPIS QA results has been strengthened since the audited period.

### IV (a)

This recommendation is for the Member States.

Regarding the relevance, appropriateness and usefulness of checking through the LPIS the issue of land at the farmer's disposal, please see Commission's reply to paragraph 30.

### IV (b)

The Commission accepts the recommendation to support Member States through facilitating exchanges of best practices and by undertaking a feasibility study.

### IV (c)

This recommendation is for the Member States.

### IV (d)

The Commissions accepts the recommendation.

All LPIS-related rules will be reviewed and if considered necessary, revised for the new CAP post 2020.

### IV (e)

The Commission accepts the recommendation.

The monitoring of sample representativeness is part of a continuous process.

## Reply of the Commission

### IV (f)

The Commission accepts the recommendation and has already started implementing it.

For the claim years 2014 and 2015 Member States have been provided with feedback on their LPIS QA reporting in the form of official letters, including remarks on required but not provided remedial actions.

All remedial actions have been analysed and in respect of those which were deemed inadequate or insufficient, revised remedial actions were requested. A specific risk assessment is in development and used by the Commission as part of its monitoring tasks as a mean to identify Member States which may have issues with the correct application of the LPIS QA methodology, including identifying the problems in the system and addressing them through appropriate remedial actions.

## Part I

### 13

The LPIS is the cornerstone of the IACS and the key instrument to control the majority of direct payments. A reliable, up-to-date and accurate LPIS is of great importance for the fulfilment of the policy objectives. In addition, it may be useful for Member States to study the cost effectiveness of their system in order to improve performance.

### 20

As regards the cases of delays in new ortho-imagery being entered into the LPIS, the Commission has recommended to the Member States on numerous occasions to have their LPIS updated before the start of the application process<sup>1</sup>.

### 22

The Commission considers that the LPIS QA results, stemming from a statistically representative sample, show a level of overstatement below 2% at the EU-level. A correct establishment of the maximum eligible area for every reference parcel in LPIS is not realistic without enormous costs<sup>2</sup>.

1 This is explicitly mentioned in section 4.4 of document DS-CDP-2015-11- FINAL- LPIS Update ('*the aim is to make the new images ready and available to be used in the geo-spatial aid application process*'). In addition, it is explained that processing of ortho-imagery should normally not take more than 3 months.

2 Analysis of the reported LPIS QA results estimates the average significant MEA overestimate by reference parcels (QE1b-/LIB) for the European Union as follows: 2013: 0.93%, 2014: 1.14%, 2015: 0.64%. The data quantify system bias (QE1a) as 2013: +0.41%, 2014: -1.16%, 2015: -0.34%. The number of inspected reference parcels was 39700, 42550 and 41300 respectively.

## **Box 2 – Examples of incorrect assessment of MEA which could have been identified by photo-interpretation**

As regards the examples of incorrect assessment of the maximum eligible area provided by the Court the Commission does not contest them. However, these particular cases in the examples are not representative of other LPIS's as a whole. The various LPIS's across the EU are different in many aspects and the characteristics of the agricultural areas in the EU are also very different.

### **23**

The Commission has recommended to Member States to carry out rapid field visits (RFV) in case of doubts on the conclusiveness of the photointerpretation on eligibility. As mentioned in paragraph 25, RFV come at cost and therefore the Commission has provided for guidance, platforms and workshops to make the use of photo-interpretation more efficient.

### **29**

The Technical Guidance on the pro rata system for permanent grassland, DS-CDP-2015-06 final provides for best practices to support Member States in the implementation of the pro rata.

In addition, the approach of the LIDAR (Light Detection And Ranging) technology used by Spain has been shared as a potential tool at the Workshop on Control and Management of Agricultural Land in IACS on 23 – 25 May 2016.

### **30**

The EU legislation does not require complementing the LPIS with information on whether the parcels are at the farmer's disposal. Systematic cross-checks with information on whether or not the parcels are at the farmer's disposal are not required. The Commission recommends to Member States to carry out on-the-spot checks in case of doubts in relation to the farmer's disposal of land.

### **32**

Under shared management, Member States decide, within the existing legal framework, on the most cost-effective way to implement the CAP. The Commission has organised several workshops to disseminate best practices including topics such as how to identify and qualify agricultural land with a view to improving cost effectiveness.

### **33**

The Commission is aware of the cost of the main functions of LPIS and in proposing EU legislation takes it into account. Beyond that there is a great diversity of LPIS and Member States choose various implementation options. Under shared management, it is for Member States to make their policy choices taking into account the cost-effectiveness of their LPIS.

## Part II

### 38

Through the LPIS guidance the Member States are made aware of the requirement and modalities to geo-localise permanent grassland (at the smallest possible level). Through LPIS QA, in particular QE 2, Member States have to assess the quality of this classification and take appropriate remedial actions when necessary.

### Box 8 – Weaknesses in the monitoring of permanent grassland

When analysing the results of the LPIS QA it is recognised that the classification of agricultural land is one of the main points where remedial actions by Member States are taken.

See also Commission's reply to paragraph 38.

### 40

Although the Commission recommends to the Member States to include all potential EFA's in the EFA layer of the LPIS, in the context of the simplification initiative, the Commission has lightened the minimum requirements in terms of completeness of the EFA-layer. In section 5.10 of the relevant guideline on the completeness of the EFA-layer (DSCG/2014/31 FINAL REV 1), it is stated that, as a minimum requirement, the EFA-layer needs to include, after verification and before payment, at least all the EFAs declared which are stable in time.

### 44

Simplification of the CAP is an on-going process respecting three main principles: No changes to the basic act (stability of policy); for the benefit of the farmer; and ensuring a sound financial management. The Commission confirms that in its view simplification does concern the LPIS.

### 45

The introduction of the geo-spatial aid application is a simplification for farmers at application stage. Similarly, the 2% stability threshold aims at avoiding that the paying agencies unnecessarily and too frequently up-date the reference parcels in the LPIS for minor variations in measured area. Finally, the rule related to the maximum tree density (so-called 100-tree rule) also aims at providing clear, simple and straightforward assessment criteria for the eligibility of parcels with scattered trees.

### 46

The Commission's data indicate that 14 Member States and 4 German Länder and Flanders had full coverage of the territory already in 2015, even though it is only mandatory to have at least 25% coverage as of 2016.

### 48

The geo-spatial aid application is also a clear simplification for farmers whereby, in case of stable and reliable information provided to them, they could simply 'click and confirm' the validity of the pre-established information at the application stage.

### 50

In order to determine the eligible area for permanent grassland, Member States could use either the pro-rata or the maximum tree density (the so-called 100-tree rule). Under both possibilities, Member States should analyse in advance and determine species that are considered grazable that will not be excluded from the eligible area. The increased administrative burden stems directly from the Member States' choices.

The maximum tree density and the pro-rata system aim at providing the national administrations with simpler and straightforward means to assess the maximum eligible area of reference parcels that contains scattered trees as it would be burdensome to delineate every single ineligible tree.

### 52

The LPIS is a powerful tool to check stable elements of eligibility of agricultural parcels but there are indeed some eligibility conditions, such as maintenance activities, which are more difficult to control through the LPIS. In LPIS there is a difference in treatment between unmaintained land (i.e. lack of agricultural activity) and abandoned land. Both are ineligible, however, unmaintained land could be only a temporary phenomenon, while abandoned land is more likely to be permanent ineligible.

### 53

See Commission's replies to paragraph 23 and 33.

### 55

The Commission considers that the simplification referred to in point b is beneficial for both beneficiaries and the paying agencies.

### Part III

**56**

LPIS QA is a yearly process, the ultimate objective of which is to improve the quality and reliability of the LPIS, by analysing detected technical weaknesses and to taking remedial actions to address them.

**59**

The Commission includes best practice and cost-effectiveness considerations when drafting guidance documents and in the technical guidance in close cooperation with the Member States.

**64**

Financial corrections are imposed in relation to financial years, so applications submitted in a given claim year are paid in the subsequent financial year. Moreover, the financial corrections normally include the expenditure incurred in the 24 months preceding the launching of enquiry. The 24-month rule allows covering longer periods and thus extending the protection of the EU budget.

**65**

The core item of inspection of the LPIS QA is the LPIS reference parcel which acts as the container for agricultural area potentially subject to an aid application.

The LPIS QA is intended to be a systematic and consistent review of the various systems independently developed by the Member States. It aims at finding possible weaknesses of these systems, so that Member States can remedy them on their own initiative.

Draft versions of the methodology have indeed been circulated and iterated (allowing Member States to react) in order to ensure that all valid comments from Member States are gathered and duly considered before a final version is released.

Most of the methodological revisions have been triggered by the changes introduced in the legislation and by the specific requests from LPIS stakeholders (Member States) to better reflect their particular LPIS implementation modes.

**66**

The LPIS QA methodology is in essence simple. It compares the recorded information with what is measured during this exercise and then the results are analysed.

The apparent complexity of the current guidance is generated by i) the introduction of processes options requested by Member States to accommodate their different LPIS implementation strategies and ii) a robust documentation format based on ISO19100-series standards.

## **Box 11 – Examples of incorrect or inconsistent application of the QA methodology**

Irrespective of the potential issue in North Rhine-Westphalia the Commission does not systematically consider the LPIS QA as being biased when a certain number of parcels of the sample population were updated in the framework of the systematic LPIS update exercise in the period between sampling and actually executing the assessment. Such a situation may reflect an effective LPIS update management.

The Commission organised a number of sessions during LPIS/OTSC workshops in 2014 and 2015 to bring the need for field visits to the attention of the Member States.

The four-eye principle introduced in ETS 6.0 stipulates explicitly the need of an independent operator.

## **Common Commission's reply to paragraphs 67 and 68**

In 2015, a change was introduced in the sampling strategy and the image provision aimed to address this issue. As from 2015 exercise the sampling of zones for the QA and the selection of the sample of reference parcels (RP) to be analysed is done by the Commission and independently from the Member States. The same methodology is now run for all LPIS, which ensures both the representativeness of the population and consistency all over the EU and over time.

## **Box 12 – Some weaknesses identified in QA sample selection from the 2010 to 2014 QA exercises**

As the remote sensing zones were mostly selected on a random basis, in principle all reference parcels had an equal chance to be selected. Nevertheless, the responsibility of selecting the reference parcels has been shifted to the JRC to ensure a better and unbiased sample selection.

### **70**

A remedial action plan is expected when the assessment of the findings reveals specific weaknesses that require a dedicated intervention. A decision for such plan should be taken only after the assessment of the LPIS QA findings.

When analysing the LPIS QA the Commission detected cases with failures in critical QE and despite this no remedial actions were set up by the Member States. This has been brought to their attention during the LPIS workshops and as from 2015 these cases are closely followed up.

## **Common Commission's reply to paragraphs 71 and 72**

From 2015 a complete follow-up of the reports is in place for the period covered by the audit. However from 2014, QA reports and remedial actions provided by the Member States were analysed.

The focus of the Commission has been on the reliability and consistency of the figures provided in the reports. A trend analysis will be carried out during the intensified monitoring of the LPIS QA if it is considered appropriate. Since the QA methodology has developed during the years, an overall trend analysis is not straightforward as the data are not completely comparable.

The Commission intends to make implementation support visits to some Member States in order to assist them with improving the quality of their LPIS.

The Commission was aware that the LPIS-QA results for claim year 2011 were at that time not the most reliable as it was the first trial year.

## Conclusions and recommendations

**76**

The EU legislation does not require complementing the LPIS with information on whether the parcels are at the farmer's disposal. Systematic cross-checks with information on whether or not the parcels are at the farmer's disposal are not required. The Commission recommends to Member States to carry out on-the-spot checks in case of doubts in relation to the farmer's disposal of land.

### **Recommendation 1 - Improving processes to increase LPIS data reliability**

This recommendation is for the Member States.

### **Recommendation 2 – Measuring the cost-effectiveness of implementing the LPIS**

The Commission accepts the recommendation to support Member States through facilitating exchanges of best practices and by undertaking a feasibility study.

**78**

The 2% stability threshold aims at avoiding that the paying agencies unnecessarily and too frequently up-date the reference parcels in the LPIS for minor variations in measured area. Finally, the rule related to the maximum tree density (so-called 100-tree rule) also aims at providing clear, simple and straightforward assessment criteria for the eligibility of parcels with scattered trees.

### **Recommendation 3 – Registering permanent environmental features more reliably**

This recommendation is for the Member States.

### **Recommendation 4 – Streamlining some LPIS-related rules in the current legal framework**

The Commissions accepts the recommendation.

All LPIS-related rules will be reviewed and if considered necessary, revised for the new CAP post 2020.

### 80

As regards the LPIS QA sent by Member States to the Commission, where relevant, formal feedback is requested from the Member States including clarifications on the content (lack of) remedial action plans. Furthermore, general results and observations are presented to and discussed with the Member States during the yearly workshops. In 2016, observations were also made during direct payment committee to increase awareness of Member States' representatives of the real advantage of the LPIS QA exercise for the improvement of their LPIS. (cf. also Commission's reply to paragraph 70 and 22).

The sampling approach is continuously monitored by the Commission.

### Recommendation 5 – Improving the representativeness of the QA samples

The Commission accepts the recommendation.

The monitoring of sample representativeness is part of a continuous process.

### Recommendation 6 – Better monitoring of QA results

The Commission accepts the recommendation and has already started implementing it.

For the claim years 2014 and 2015 Member States have been provided with feedback on their LPIS QA reporting in the form of official letters, including remarks on required but not provided remedial actions.

All remedial actions have been analysed and in respect of those which were deemed inadequate or insufficient, revised remedial actions were requested. A specific risk assessment is in development and used by the Commission as part of its monitoring tasks as a mean to identify Member States which may have issues with the correct application of the LPIS QA methodology, including identifying the problems in the system and addressing them through appropriate remedial actions.



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Event	Date
Adoption of the Audit Planning Memorandum/Start of audit	3.6.2015
Official sending of draft report to Commission (or other auditee)	13.6.2016
Adoption of the final report after the adversarial procedure	7.9.2016
Commission's (or other auditee's) official replies received in all languages	13.9.2016

A Land Parcel Identification System (LPIS) is an IT system based on photographs of agricultural parcels used to check payments made under the Common Agricultural Policy (CAP) of approximately 45.5 billion euro in 2015. We concluded that the LPIS is a useful tool for determining the eligibility of agricultural land but its management could be further improved. We identified some weaknesses in LPIS processes affecting the Member States' ability to reliably check the eligibility of land. We found that Member States had made progress in upgrading their LPISs to meet the 2014-2020 CAP requirements. However, LPISs had not yet been completely adapted for greening. The Commission's LPIS monitoring improved but did not focus enough on LPIS performance.

