



**Ministry of Environment
and Food of Denmark**

The Danish
Agricultural Agency

Annex B – Requirements specification

**Software for carrying out the annual LPIS QA
including ETS, MTS, and user support**

1 REQUIREMENT SPECIFICATION

1.1 Reason for purchase

The Danish Agricultural Agency (the customer) needs software for carrying out the annual LPIS QA including ETS, MTS and user support. The software solution should be highly automated e.g. with warning messages if there are incorrect/possible wrong registrations of the operator, automated calculations of the QE's where possible, and export of most of the XML and GML files directly from the software.

The LPIS QA is a test set up by and reported back to the European Commission. The overall goal is to do a quality assessment of the identification system for agricultural parcels (LPIS).

The requirement for the customer to do the LPIS QA is currently set up in Article 6 of the Commission Delegated Regulation No 640/2014 of 11 March 2014. Further specification can be found on the Commissions webpage regarding the LPIS QA:

- ETS: https://marswiki.jrc.ec.europa.eu/wikicap/index.php/LPIS_TG_ETS
- MTS: https://marswiki.jrc.ec.europa.eu/wikicap/index.php/TG_MTS

The requirements that are described in this document, corresponds to the requirements in Annex C – Supplier's offer and solution.

Please note, that if all of the following requirements named "MINIMUM REQUIREMENT" are not wholly met, the offer does not comply with the overall requirements of this tender, and the offer will therefore not be evaluated.

1.2 Description of purchase

The customer needs a highly automated software solution for carrying out the annual LPIS QA including the ETS and MTS.

1.2.1 Experience with LPIS QA and/or LPIS

Requirement #1 – Recent experience with ETS and/or LPIS (MINIMUM REQUIREMENT)

The supplier is required to have current (within the last 1 – 2 years) experience with the annual LPIS QA (ETS and MTS) and/or the LPIS required under the Common Agricultural Policy (CAP).

1.2.2 Installation and users

Requirement #2 – No exchange of data (MINIMUM REQUIREMENT)

The software must be able to operate and deliver the desired files without data exchange between the customer and the supplier. The only exception to this is when data exchange is it needed for support for the software.

Requirement #3 – Installing and running the software (MINIMUM REQUIREMENT)

It should be possible to copy the software directly to a folder and run the software without any further installation.

Requirement #4 – Multiple users

Multiple users of the software is required (up to 10 users) e.g. by copying the software to different folders from where the different users can run the software.

1.2.3 Delivery and update of the software

Requirement #5 – Delivery of the software

There should be an easy, secure, and quick way for the supplier to deliver the software to the customer, both initially and when updates are needed.

Requirement #6 – Update of the software

The supplier at all times have to be up to date with the specifications and changes from the Commission and make sure that the necessary changes are made to the software. Please describe how this will be done.

1.2.4 Functions etc. in the software

Requirement #7 – Language (MINIMUM REQUIREMENT)

All the text including manuals, text in the software, etc. should be in either Danish or English.

Requirement #8 – Input of relevant data

It should be possible to enter all the relevant data specified by the Commission, in an easy way and with a minimum risk of error. This could include e.g. the code list for the type of area, classification of GAEC elements and areas with HV-codes (as specified in the guidelines), the cause for each type of error, etc.

Requirement #9 – List of non-agricultural land cover types

It should be possible to expand the list of non-agricultural land cover types that the operators can choose from. So instead of choosing e.g. “Artificial sealed surface and associated areas”, the operator chooses e.g. “Building”, “Road”, etc., from the list that the customer have specified.

Requirement #10 – Extra alphanumerical data

The customer have to be able to add extra alphanumerical data (attributes) with the data imported to the software, e.g. to include information about the gross area, pro rata percentage, or last date of editing of each of the reference parcels in the test.

Requirement #11 – Extra geospatial support layers and services

The software should support that the customer can import many different geospatial support layers/services such as fields, GAEC-elements, ortophotos etc. The customer both need to import shapefiles and data via WMS e.g. orthophoto.

Requirement #12 – GIS functions

The software should have the common GIS functions, preferably with the following features:

- Digitisation of points and polygons - The operators should be able to easily digitise all the relevant points and polygons as specified by the Commission
- Merging of polygons
- Splitting of polygons
- Making a hole inside a polygon
- Predefined zoom levels as well as an option to manually write a specific zoom level
- In digitization, the ability to pan without ending digitization
- An editing tool, where you can easily include and exclude one or several areas in the boundary of the polygon

Requirement #13 – Check for geometric overlap

In the software there should be a possibility to check for geometric overlap in the digitized polygons and with a way to find the specific overlap.

Requirement #14 – Validations for registration errors or missing registrations

The software should have validations, to make sure that actual and possible registration errors or missing registrations can be found and corrected. For actual missing or erroneous registrations, there should be a clear warning before export of xml/gml files and it should not be possible to export the files before this is corrected.

Requirement #15 – Overview of percentages (area purity and classification)

In the software there should be an easy overview of the percentages of area purity and the percentages for arable land, permanent grassland, and permanent crops (classification) for each of the reference parcels in the test, to be able to see where a possible error occur.

Requirement #16 – Displaying conforming and non-conforming reference parcels

In the software it should be possible to easily see if the reference parcel that the operator is working on is conforming or not.

1.2.5 Creation of gml and xml files for reporting to the Commission

Requirement #17 – LpisPointZeroState.gml

The LpisPointZeroState.gml can be created by the software, based on e.g. a file with the relevant data for the scope. The customer mainly use shapefiles, so at least this should be possible.

Requirement #18 – EtsInspectionMeasurements.gml

The EtsInspectionMeasurements.gml can be created by the software, based on the registered data in the software.

Requirement #19 – EtsObservations.xml

The EtsObservations.xml can be created by the software, based on the registered data in the software.

Requirement #20 – LpisSamplePreselectionStatus.xml

The LpisSamplePreselectionStatus.xml can be created by the software, based on data in the software.

Requirement #21 – NonConformity.gml

The NonConformity.gml can be created by the software, based on the registered data in the software.

Requirement #22 – LpisPolygonZeroState.gml

The LpisPolygonZeroState.gml can be created by the software, e.g. based on the registered data in the software or a file with the relevant data. The customer mainly use shapefiles, so if the creation of the LpisPolygonZeroState.gml is based on a file, this at least should be possible.

Requirement #23 – EtsAssessmentReport.gml

The values and text for the ETS Assessment Report can be filled in (manually or automatically) in the software and the EtsAssessmentReport.gml can be created by the software based on this. It would be good if a word or pdf-version of the data in the EtsAssessmentReport can be exported from the software.

Requirement #24 – IXIT.xml (MINIMUM REQUIREMENT)

The relevant data for the IXIT can be filled in in the software and the IXIT.xml can be created by the software based on this.

Requirement #24.1 – IXIT.xml

It would be preferable if it is possible to import or in other ways quickly insert data from a previous IXIT, so that the customer only spend time on the data, which needs to be changed.

Requirement #25 – ModelTestSuite.xml (MINIMUM REQUIREMENT)

The relevant data for the Model Test Suite can be filled in in the software and the ModelTestSuite.xml can be created by the software based on this.

Requirement #25.1 – ModelTestSuite.xml

It would be preferable if it is possible to import or in other ways quickly insert data from a previous IXIT, so that the customer only spend time on the data, which needs to be changed.

Requirement #26 – SystemMetadata.xml (MINIMUM REQUIREMENT)

The relevant data for the System Metadata can be filled in in the software and the SystemMetadata.xml can be created by the software based on this.

Requirement #26.1 – SystemMetadata.xml

It would be preferable if it is possible to import or in other ways quickly insert data from a previous IXIT, so that the customer only spend time on the data, which needs to be changed.

1.2.6 Calculation of the quality elements (QE)

Requirement #27 – Calculation of QE's

QE1a, QE1b, QE2a, QE2b, QE2c, QE3, and QE4 can automatically be calculated and displayed in the software, from the registered data in the software.

1.2.7 Support and training

Requirement #28 – Support

If needed, it should be possible with on-site support. Otherwise support by e-mail and phone should be possible, when problems arise.

Requirement #29 – Training

If needed in relation with understanding and getting to know the new or updated software, training should be provided on-site in Denmark.

1.3 Timeframe for delivery

1.3.1 Security approval and test of software

Requirement #30 – Security approval and test of software (MINIMUM REQUIREMENT)

The bidder who wins the tender, has to send the documentation that the customer at any time requests in order to get security approval for the software.

The requirements for security approval is at all times based on an assessment of the individual software. It is therefore not possible for the customer to specify in advance, which requirements needs to be in place.

It is at all times up to the customer, which documentation needs to be delivered from the bidder with respects to the security approval.

After the software has been approved in the customer's security protocol, the bidder has to deliver the software for the customer to test. This test is to make sure the software lives up to the requirements specification and the bidder's description in the offer.

This minimum requirement apply to software which has not yet been security approved and tested by the customer.

1.3.2 Initial delivery of the software

Requirement #31 – Initial delivery of the software

The supplier should deliver the software for the customer to be able to:

- Run the ETS-test from the middle of October. Delivery at the 20th of October at the latest
- Report to the Commission on the ETS and MTS in the end of January
- Send scope data to the Commission in August. Delivery at the 10th of August at the latest

1.3.3 Delivery of the software or updates to the software after initial delivery

Requirement #32 – Subsequent delivery of new software or updates to the software

When necessary, an updated or new version of the software has to be delivered in time, for the customer to be able to send the scope data with the correct specifications to the Commission in August of every year. This delivery should be on the 10th of August at the latest.

When necessary an updated or new version of the software has to be delivered on the 20th of October at the latest, for the customer to be able to complete the ETS and MTS in time for the delivery on the 31st of January every year.

When there are changes to the specifications from the Commission or other issues related to the software, this could mean that a new version of the software is necessary for the customer to be able to deliver in time. This new version of the software has to be delivered in due time for the customer to be able to meet the deadlines, unless out of the hand of the contractor e.g. very late changes from the Commission. This links to requirement #6.

These timelines are subject to change, if the Commission changes the deadlines related to the ETS and MTS. If there are changes in the deadlines from the Commission, the supplier shall at all times adapt the delivery of the software or updates to the software, to make sure that the customer has a similar time span between delivery/update and the Commission deadlines, as with the time span between the current delivery plan and current Commission deadlines.

The ordinary contract will run for three years from 1st October 2020.

Requirement #31 and #32 gives this delivery plan.

Year 1 (2020)	Deadline
Initial delivery of software	20th of October 2020 at the latest
Delivery of software update if needed	As quickly as possible after errors are found or after change from the Commission

Year 2 and onwards (2021 -)	Deadline
When necessary, delivery of software or software update, for the customer to be able to export scope-data correctly. If most convenient, this could be an update to the previous version of the software.	10th of August at the latest
Delivery of software for the customer to be able to perform the ETS	20th of October at the latest
Delivery of software update if needed	As quickly as possible after errors are found or after change from the Commission

1.4 Options

The customer has the option to extend the contract three times, one year at a time.