

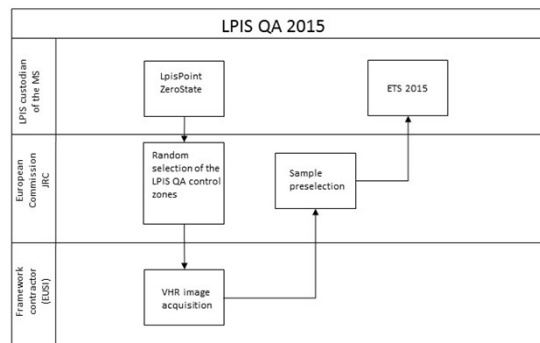
Zone selection and image delivery for the LPIS QA 2015

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Outline

Introduction
Zone selection/Scene allocation
Image acquisition/delivery
Image specifications
Image quality - examples
Conclusion



Introduction

Legal Basis for zone selection and parcel selection:

EC Regulation 640/2014 art 6.2: “Member States shall perform the assessment referred to in the paragraph 1 on the basis of a sample of reference parcels to be selected and provided by the Commission. They shall use data allowing to assess the current situation on the ground.”

Two concerns:

1. Assure absence of bias : Each reference parcel should have an equal probability of inspection
2. Provide appropriate reference of current situation: Most RP are designated on basis of 25cm GSD imagery, inspection must be done on impeccable images with field observation feasible

ETS (Zone selection and image acquisition, Sampling, ETS inspection, Analysis, ETS reporting, data upload – LPIS QA portal)
CWR5 zone \neq LPIS QA zone

Zone selection/Scene allocation

Principles

Starting from LPIS level (44)

NUTS* 2 level, aggregated according to (LPIS) respective number of RP

Base number of zones according to the sample size of RP's: 500=1, 800=2, 1250=3

Extra scenes/zones depending on latitude per Member State

1 scene if $0.5 < \sin(\text{lat}_N - \text{lat}_S) < 0.7$, PL/PT/RO/UK-EN

2 scenes if $0.7 \leq \sin(\text{lat}_N - \text{lat}_S)$, EL/ES/FI/FR/IT/SE

Total 121 /scenes/zones

low density areas (2)

Bonus (10), if sample size is not sufficient

* Nomenclature of Units for Territorial Statistics (Nomenclature des unités territoriales statistiques)

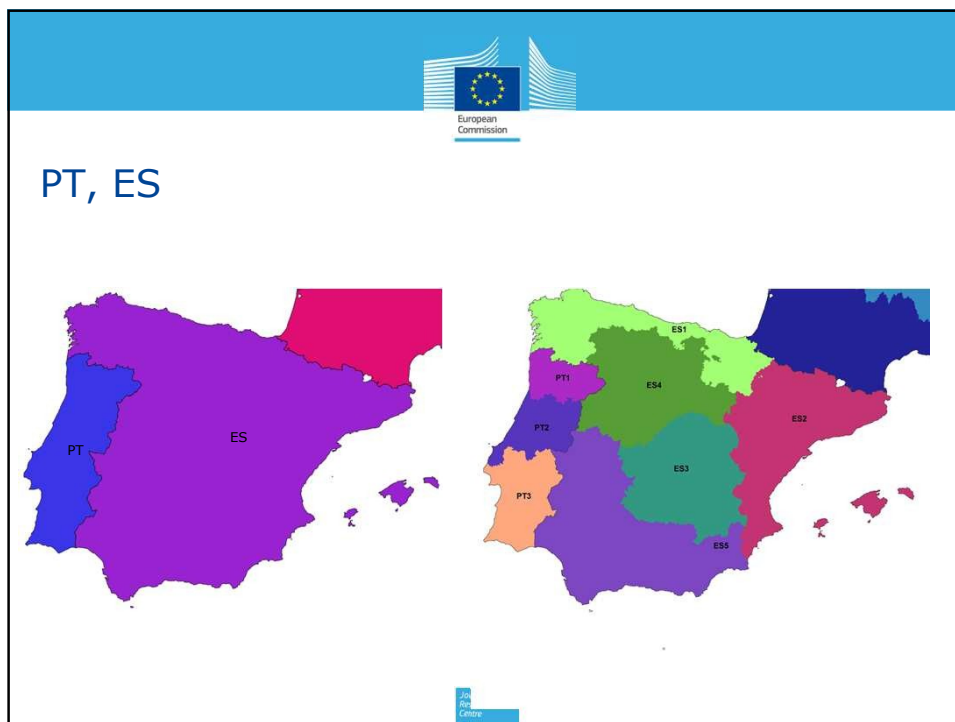
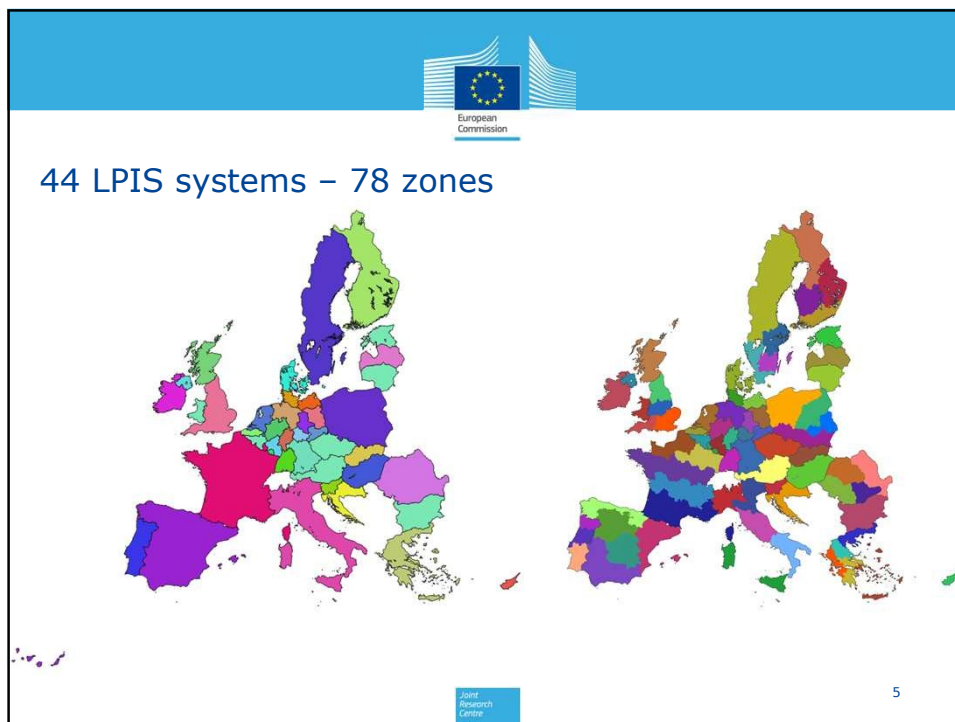
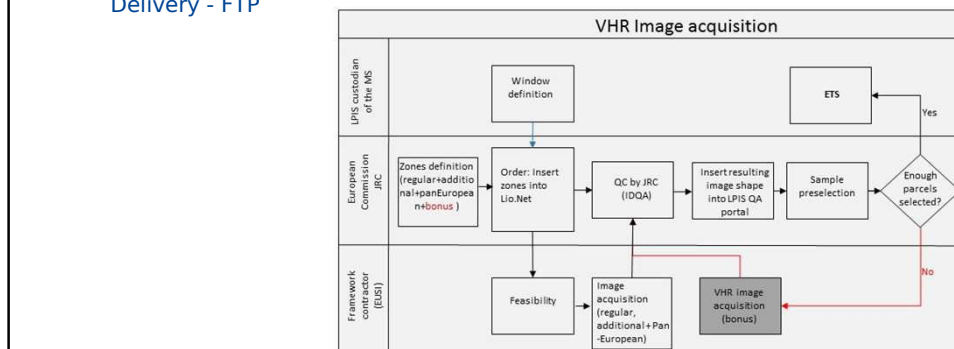


Image acquisition/delivery

an operational procedure to:
 process ordering - NG-LIO.NET,
 acceptance control - NG-LIO.NET - IDQA (Input Data Quality Assessment)
 Delivery - FTP



Possible scenarios

Base number of zones (images) does ensure enough sample size -> ETS
 Base number of zones (images) does not ensure enough sample size +
Bonus image -> ETS
 Base number of zones (images) + Extra image does not ensure enough
 sample size + **CwRS zone** -> ETS

Image specifications

Pansharpened multispectral (4bands RGBN) image
50cm GSD (compatible with LPIS creation imagery)
Nadir-view (avoiding feature leaning and topography displacement),
Off nadir angle (ONA) < 10deg
Standard Orthoready product
Cloud and haze-free (to obtain optimal radiometry) - impeccable
quality expected

Image quality

GeoEye 1
10deg off nadir
Acquisition date: 14/2/15



Image quality

GeoEye 1
10deg off nadir
Acquisition date: 14/2/15



11

Image quality

Worldview2
10deg off nadir
Acquisition date: 8/3/15



12

Image quality

Worldview2
10deg off nadir
Acquisition date: 8/3/15



13

Image quality



14

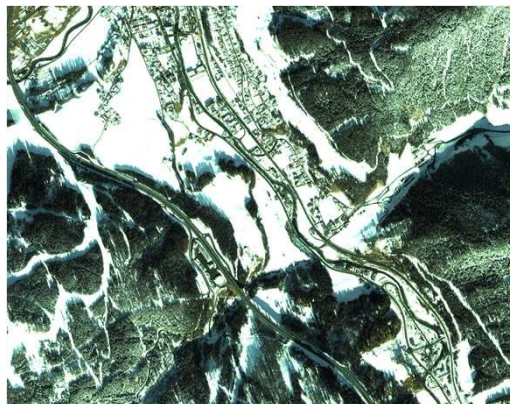
Image quality



15

Image quality

Snow coverage is not
acceptable



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Conclusion

Independent zone selection

Scene selection and acceptance is no longer done by the MS but by the EC (JRC)

Providing equal conditions for all,

Due the higher image quality, lower rates of skipping for technical reasons can be expected

The EC-services will do scene acceptance and manage the bonus scene acquisition.

MS will still have to ortho-rectify the scenes

MS will receive their RP sample (LpisSamplePreselection.xml), only when all their scenes are captured and accepted

**THANK YOU
FOR
YOUR
ATTENTION
ANY QUESTION ?**