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CAP checks 2015: Image acquisition status, and news



(in collaboration with GTCAP)

Varese 20-21 April, 2015

Outline of the satellite image acquisition session:

- Image Requests
evolution, and increase
characteristics
- Status of VHR and HR acquisition today
- Costs
- Image Return to JRC
- Miscellaneous issues
- NG-LIO.NET status
- NG-LIO.NET future
- CAP-tool
- Questions and answers to EUSI / Airbus

CAP checks evolution

		2003	2004	2005	2006	2007	2008	2009	2010*	2011*	2012*	2013*	2014*	2015*
HR	N. images	680	690	690	693	657	538	655	671	735	640	662	607	1048**
	Cost [M€]	1,60	1,70	2,00	2,30	2,30	1,60	2,13	2,12	2,00	1,57	1,64	0,72	1,32
VHR	Area [Km ²]	12000	50000	126000	127000	150000	160000	174700	224000	242000	242300	267000	299000	497836
	Cost [M€]	0,30	1,60	3,00	3,00	3,30	3,80	3,90	4,55	5,10	4,87	5,36	4,34	7,2
Total cost [M€]		1,90	3,30	5,00	5,30	5,60	5,40	6,03	6,67	7,10	6,44	7,00	5,06	8,52
MS participation		12	22	24	23	24	24	25	27	27	27	28	28	28

(*) - includes LPIS

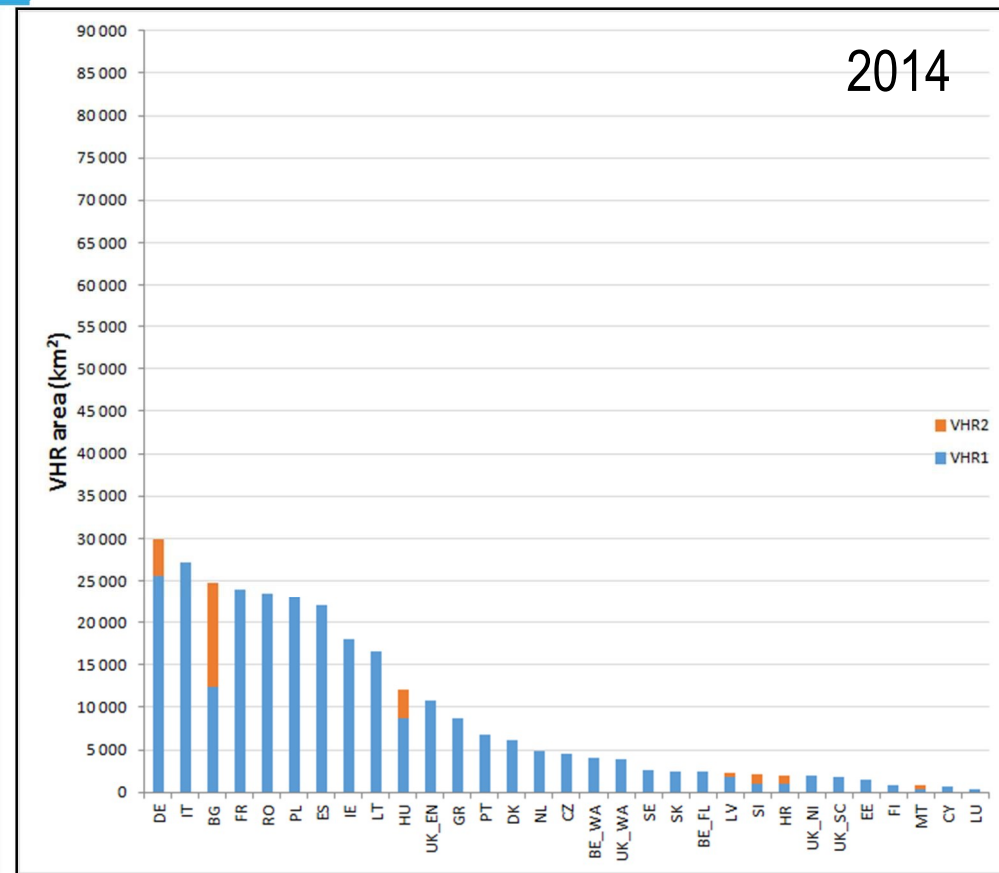
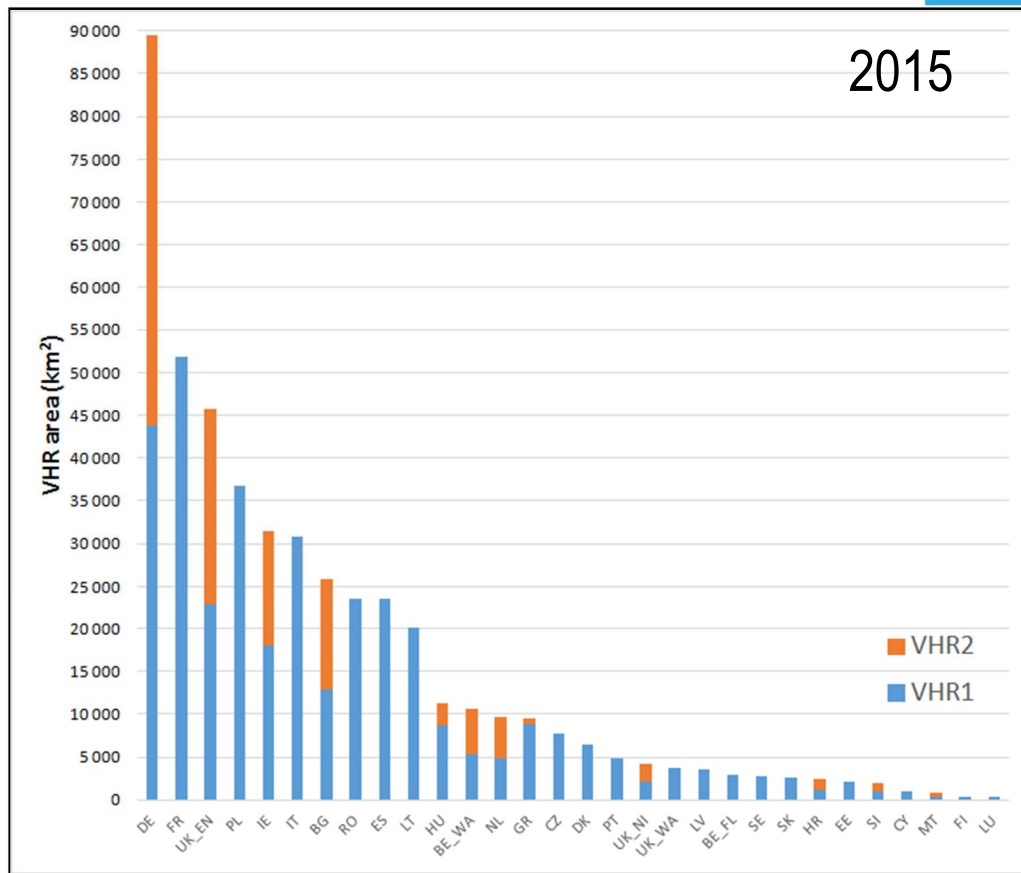
(**) - HR total area 2015 campaign: 863 074 km²

2014 -> 2015: Total **VHR** area request increased from ~300 000km² to ~500 000km² i.e. **1.6 times**

(including LPIS QA zones)

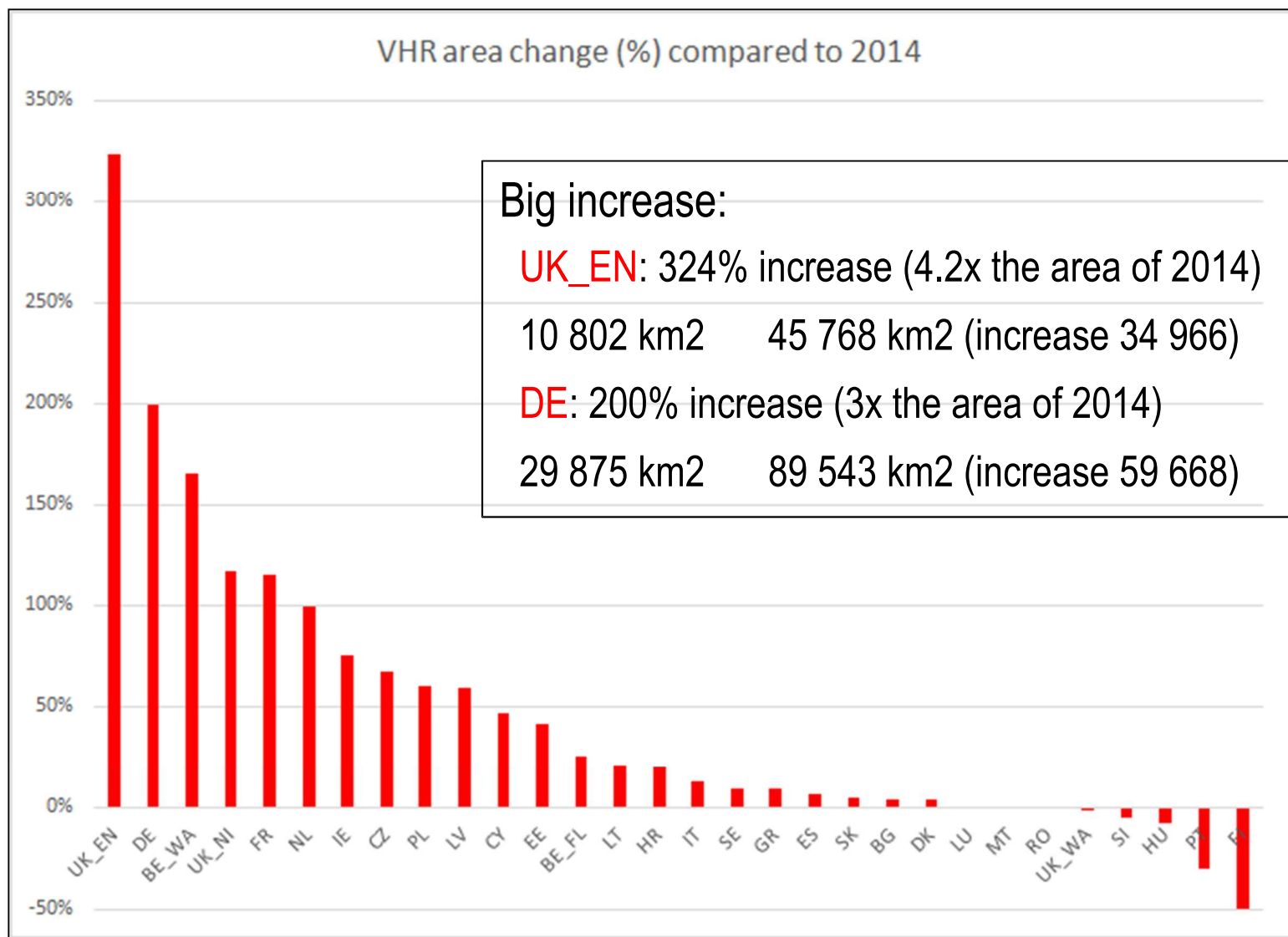
2014 -> 2015: Total **HR** images request increased from 607 to 1048 i.e. **1.7 times**, from now on let us talk km² also for HR (= 863.074 km² in 2015)

VHR requests (1/2)

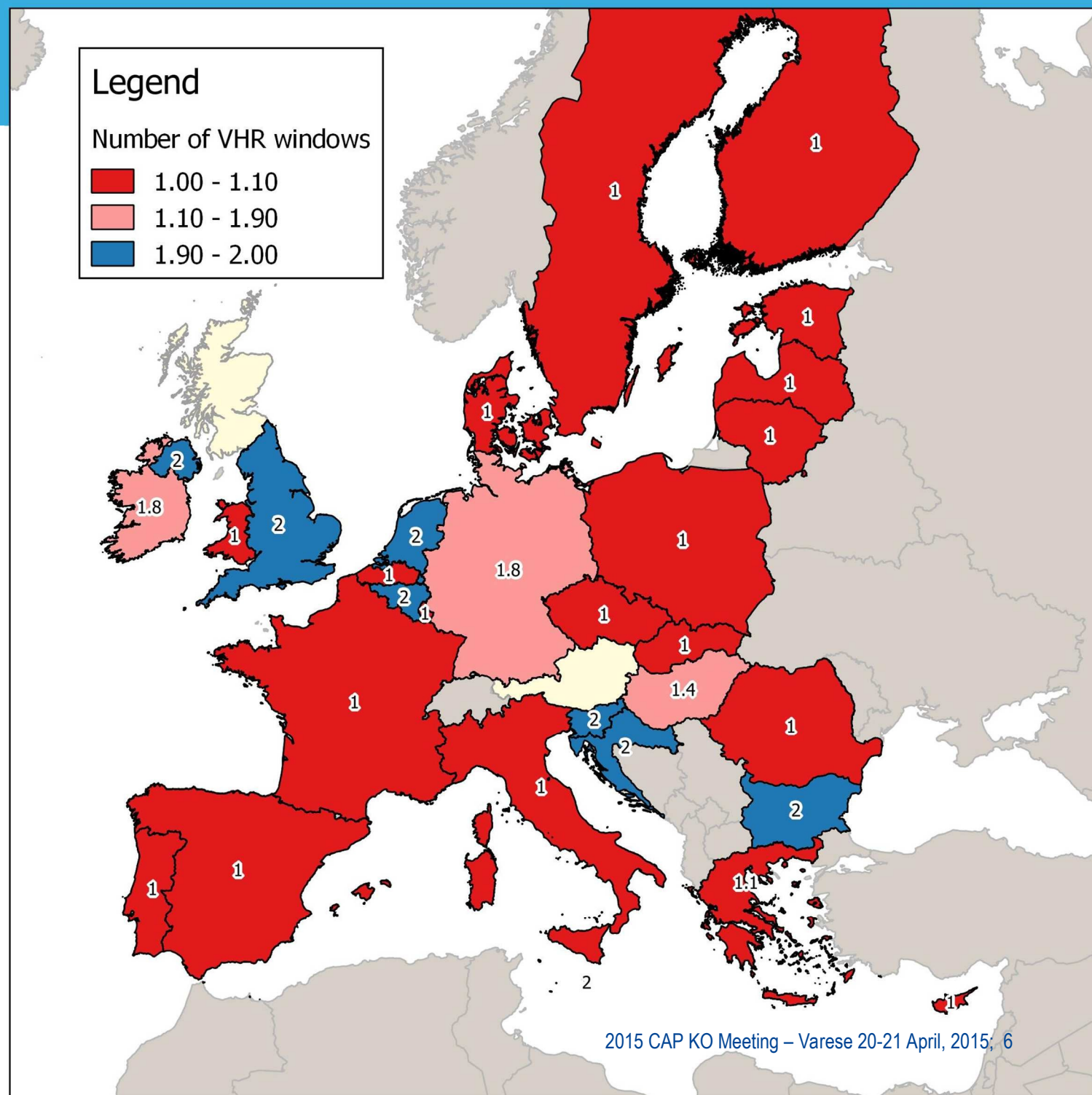


2014 -> 2015: Total **VHR** area request increased from ~300 000km² to ~500 000km² i.e. **1.6 times** (including LPIS QA zones)

VHR requests (2/2)



Average number of VHR windows per zone

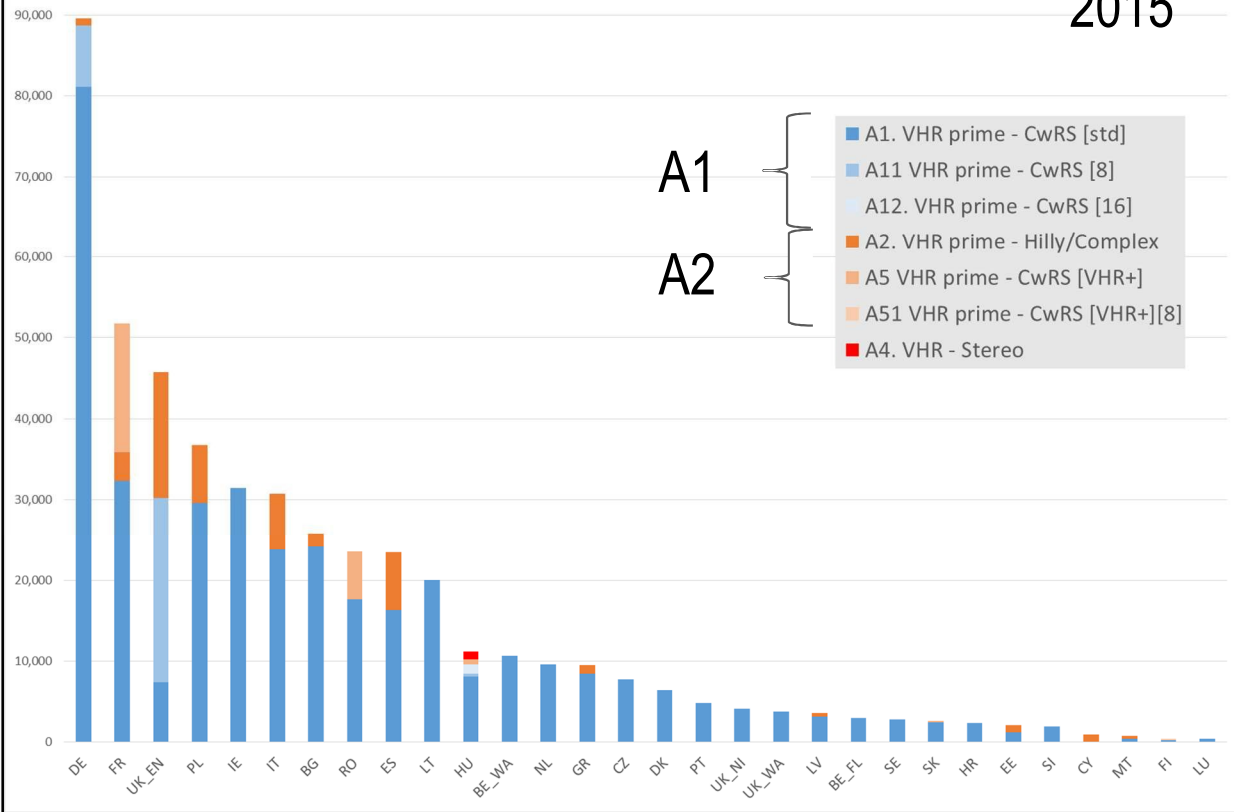


VHR profiles



VHR area (km²) by profile

2015

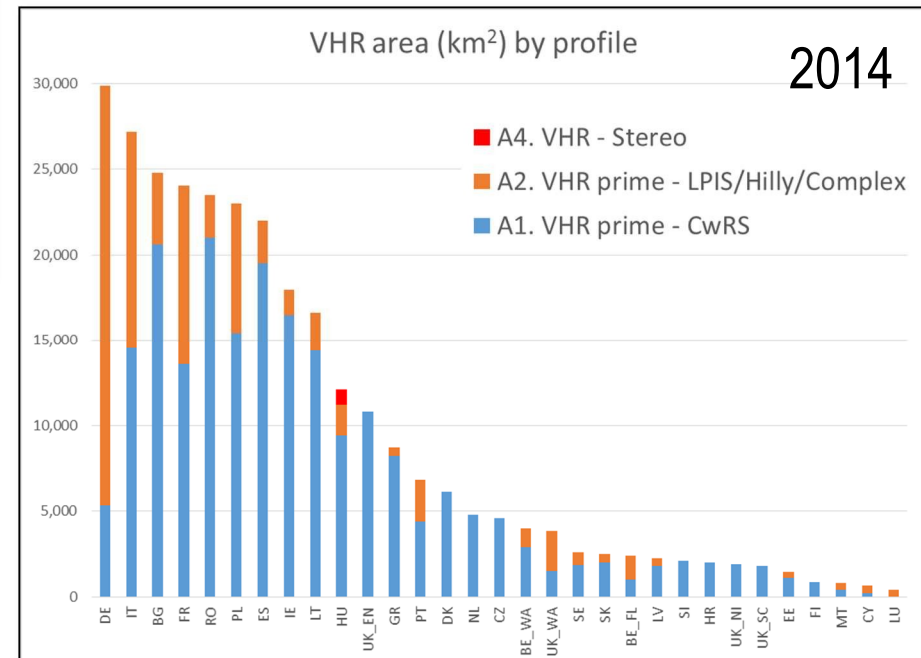


More profiles in 2015, but since VHR+ tender not awarded yet:

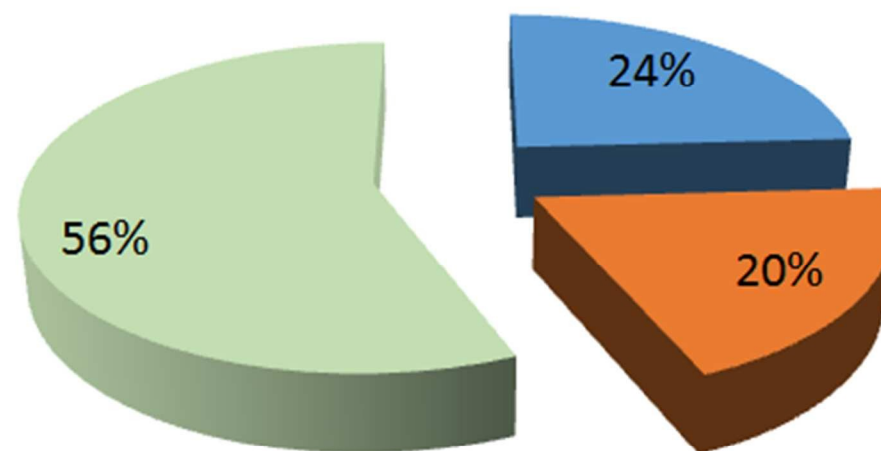
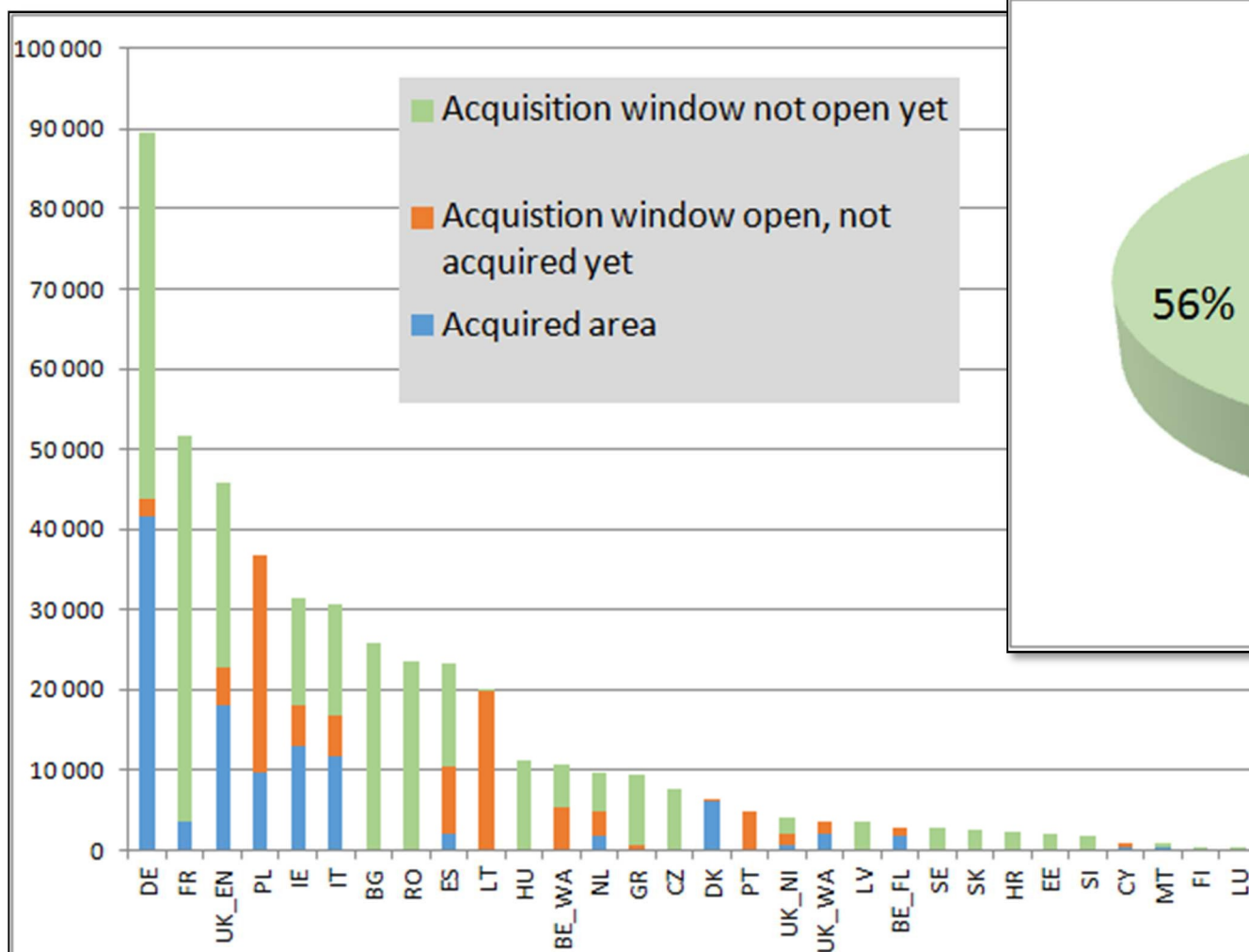
A5 (elevation > 67deg) A2 (>56 deg)
 A11, A12, A51, A52 (8/16 bands) A1 or A2

VHR area (km²) by profile

2014



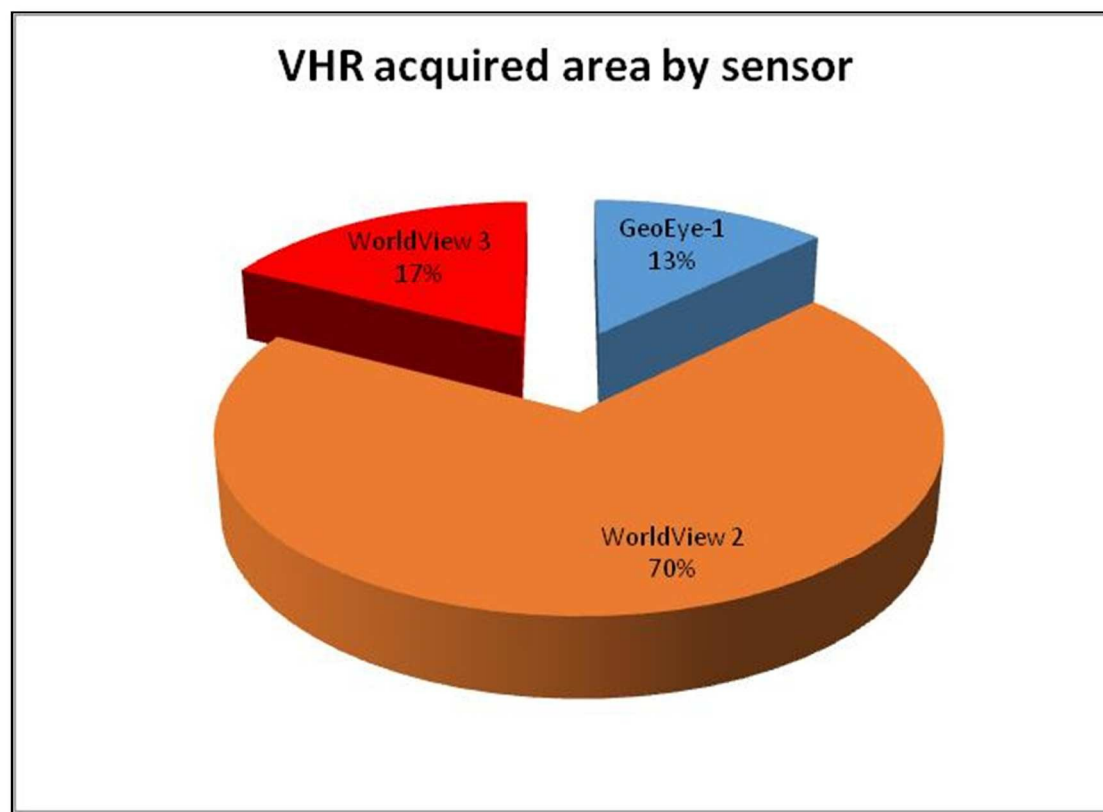
Status of VHR image acquisitions 17/04/2014



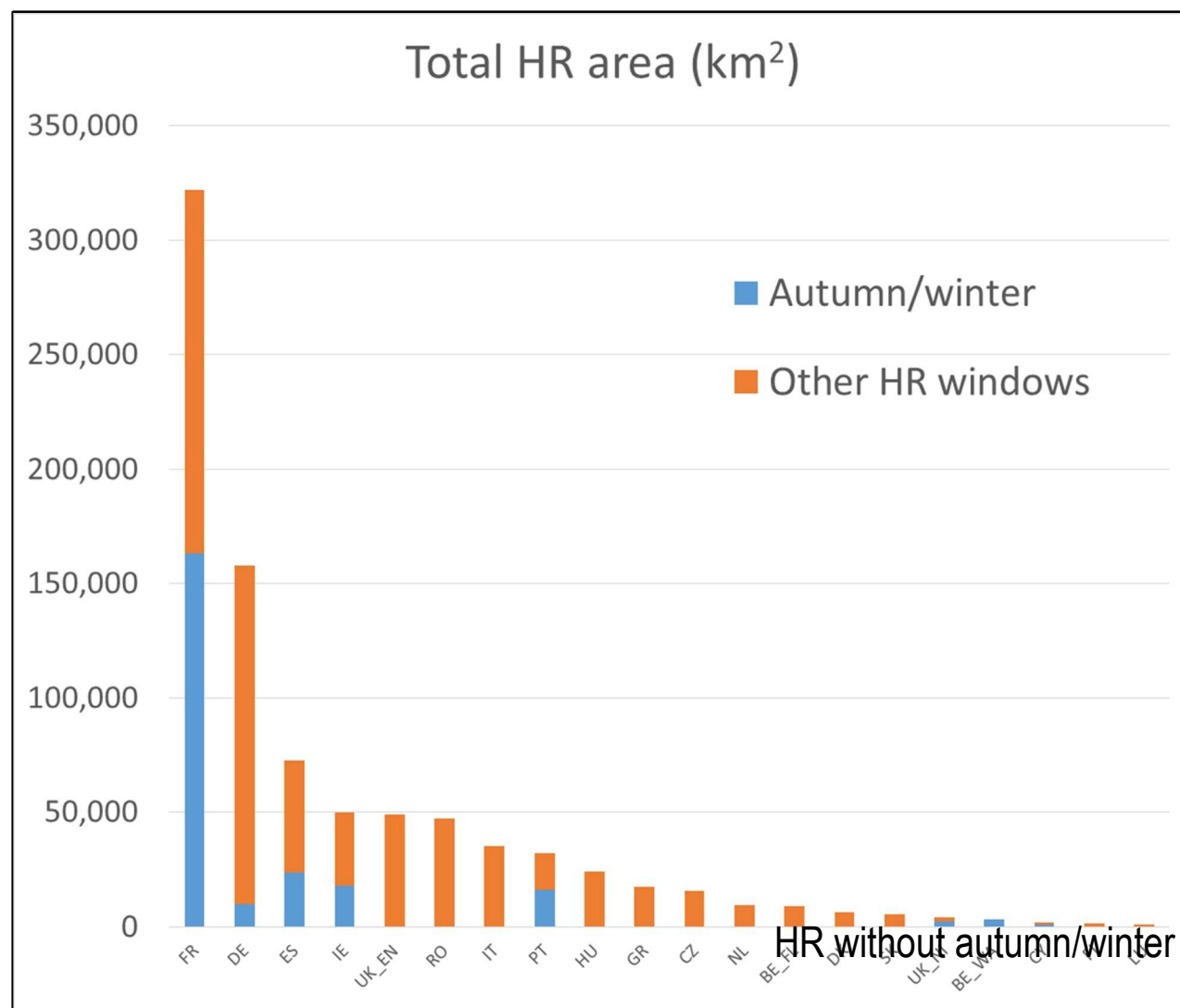
Total VHR area: 467 911 km²
(excluding LPIS QA zones)

(nota. LT opened on 17/04/2015)

Acquired area by sensor(VHR) up until 17/04/2015



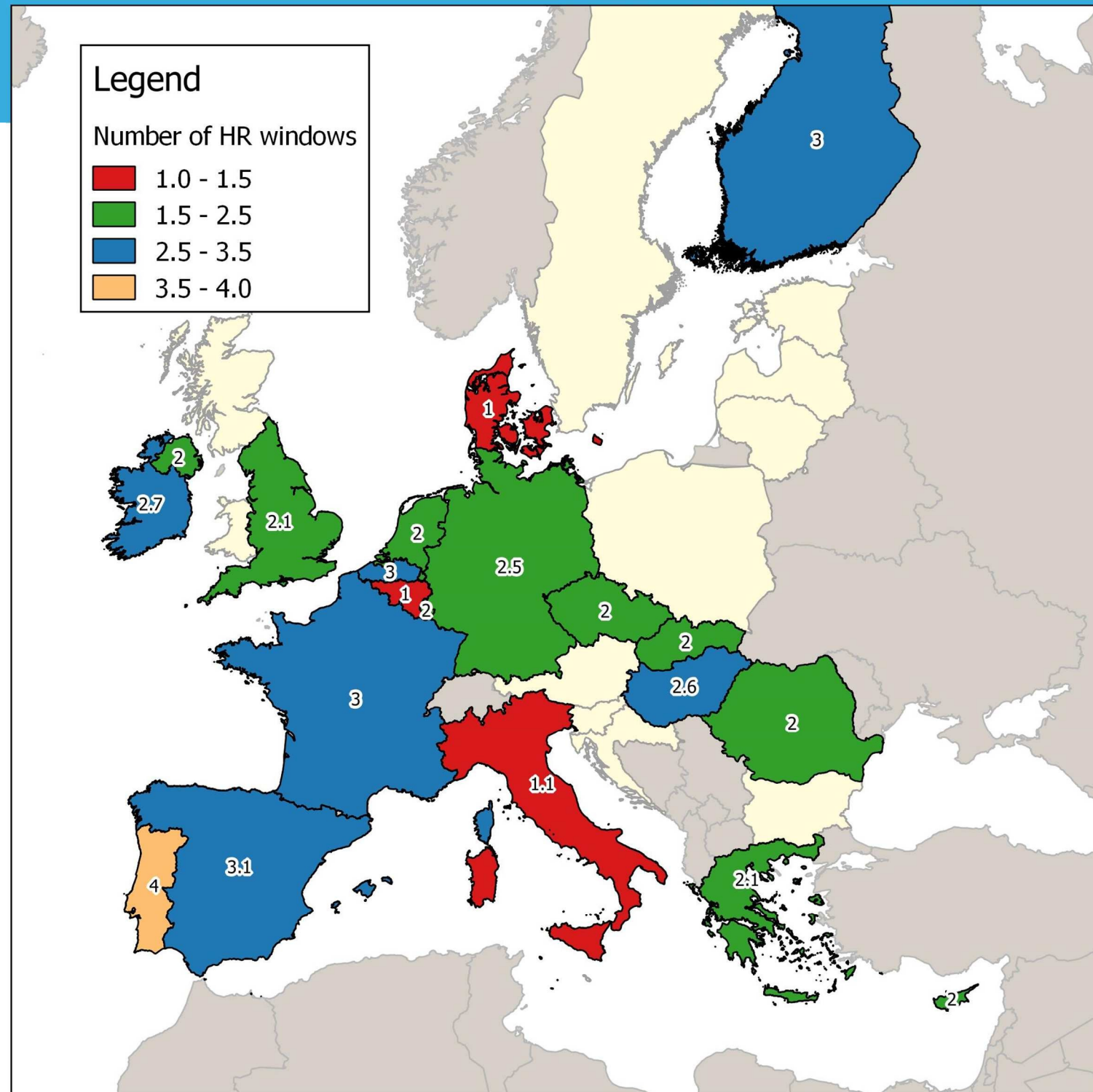
HR area by MS (km²)



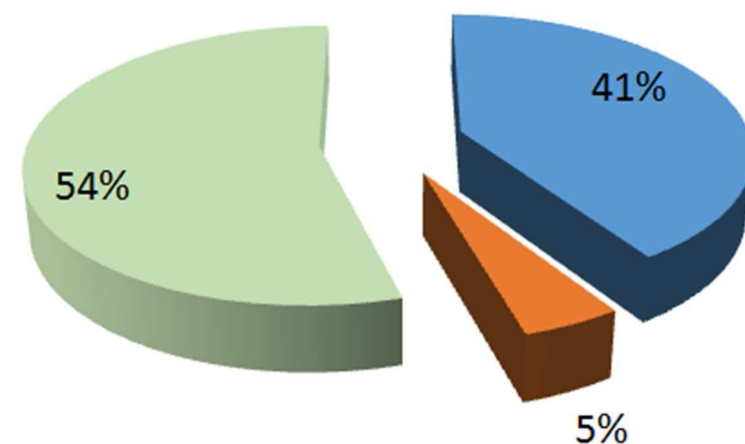
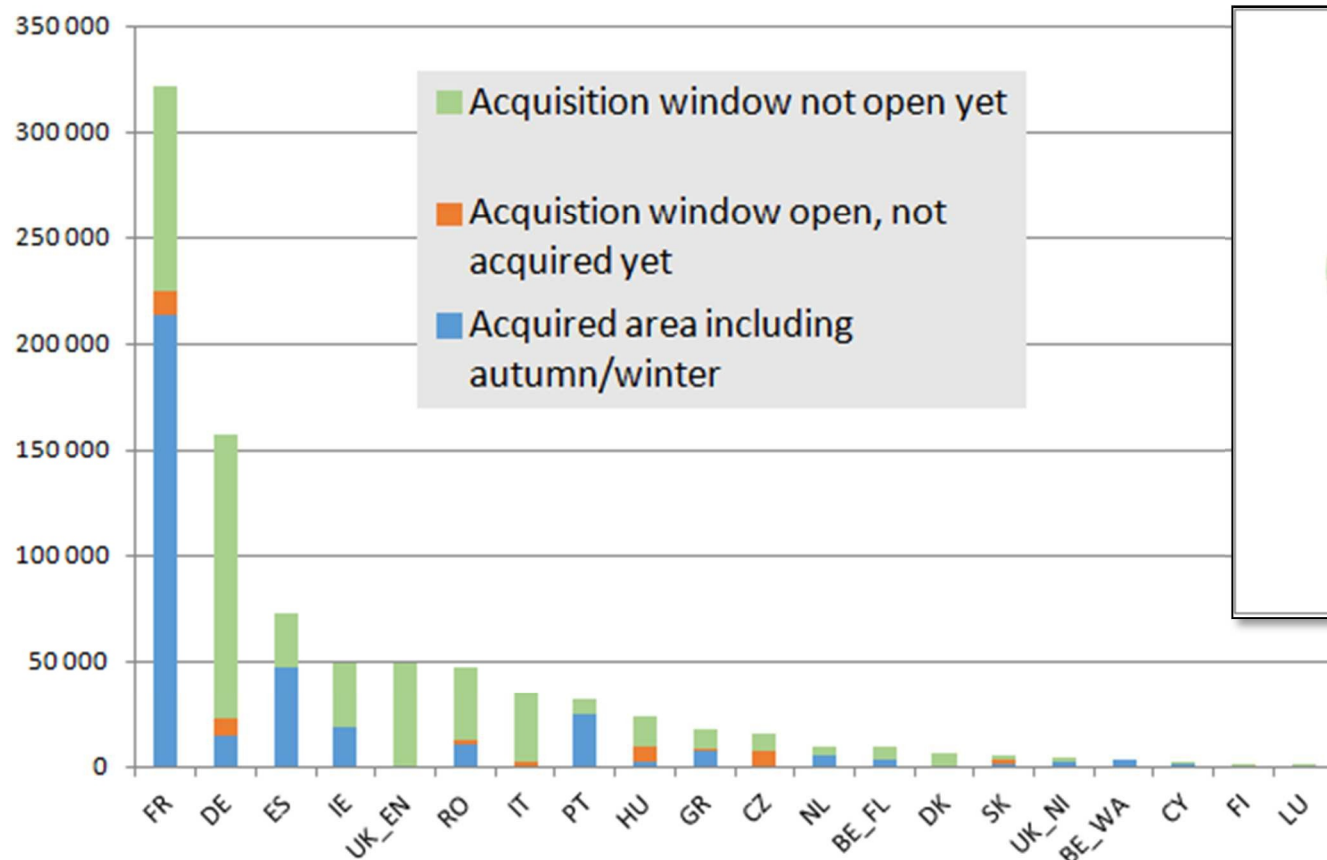
HR total area
2015 campaign:
863 074 km²

Average number of HR windows per zone

Includes Autum/winter windows

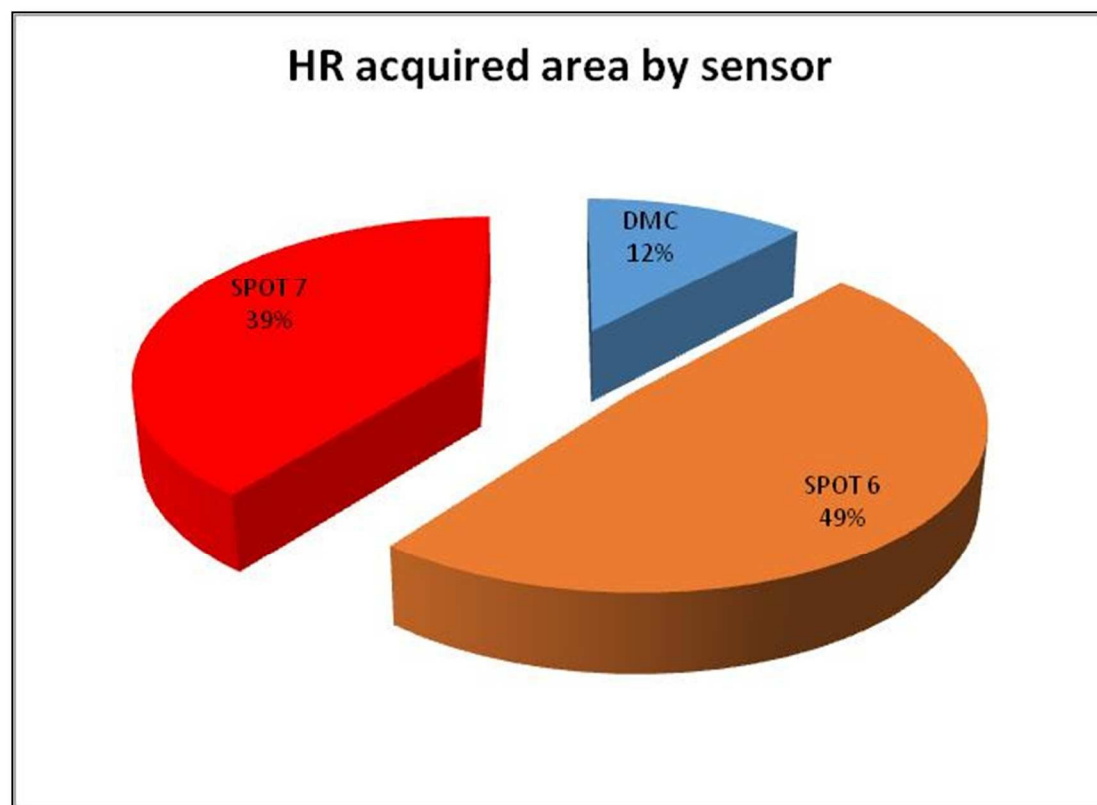


Status of HR image acquisition 17/04/2014



Total HR area: 863 074 km²

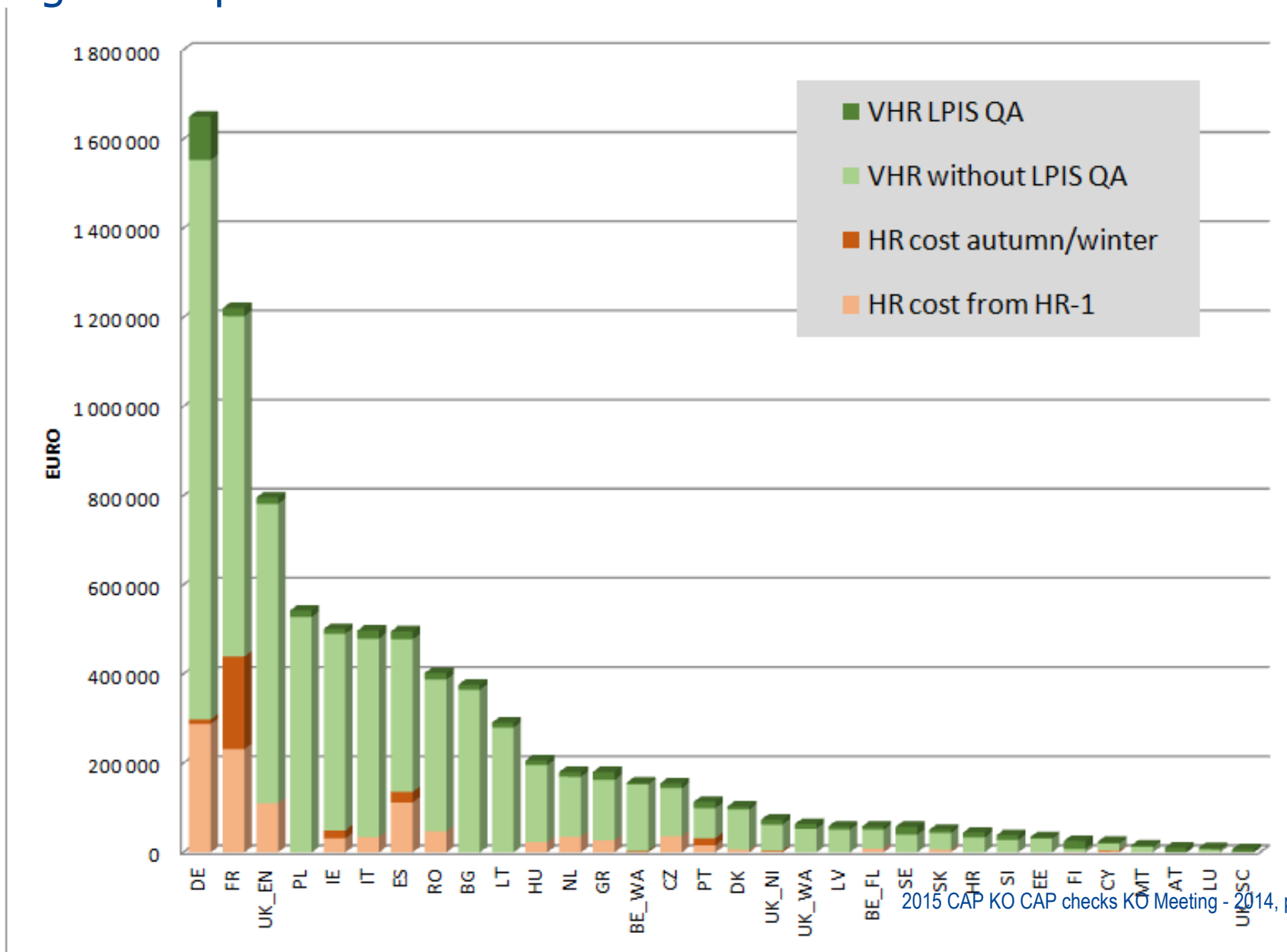
Acquired area by sensor (HR) upto 17/04/2015



HR without autumn/winter



Total image cost per MS





Total image cost per CwRS area per MS

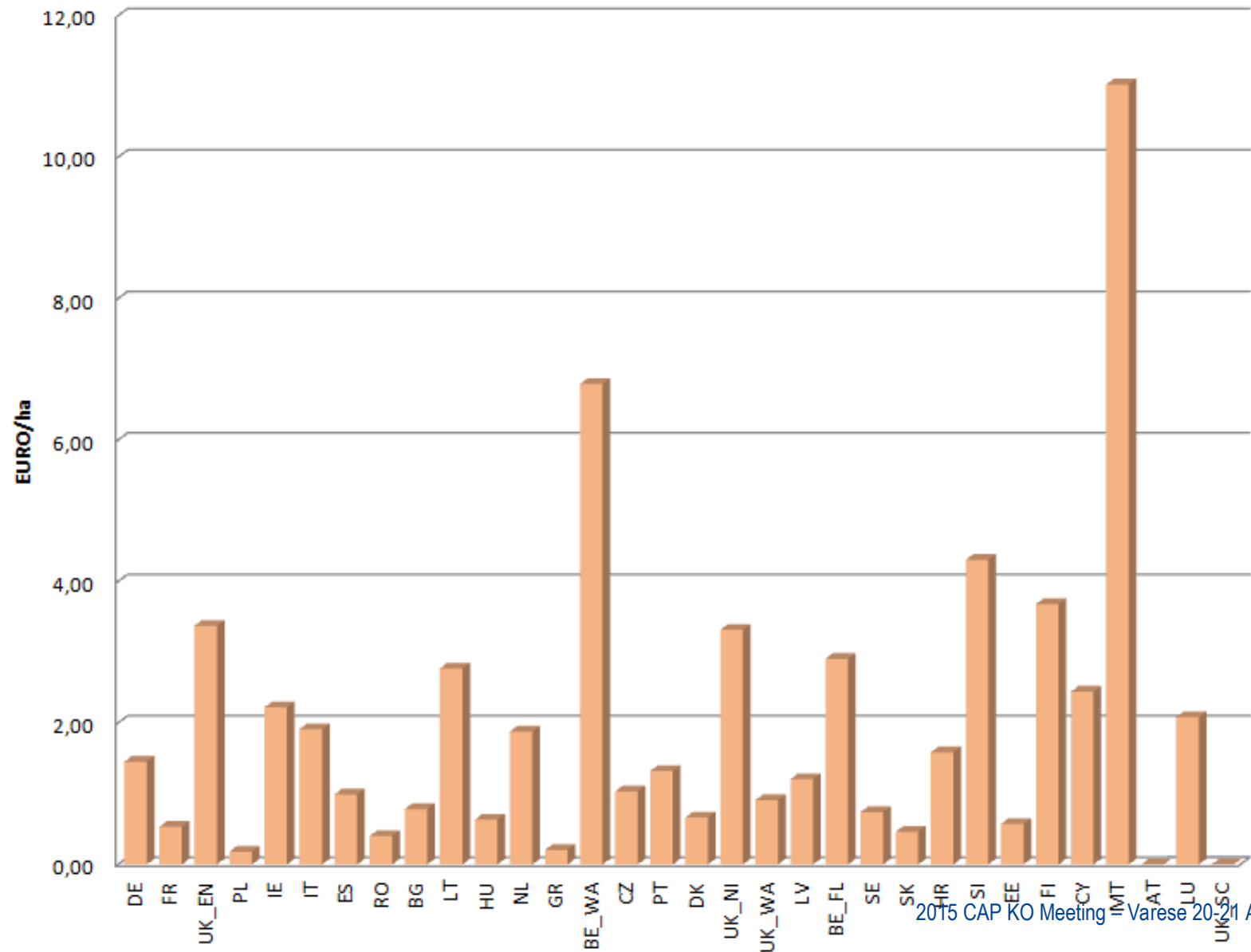


Image return to JRC

- **Status 2014**

HR / VHR Source data: is completely delivered to JRC.

HR Ortho Image Return (OIR): all MS contractors delivered, except of PT. Some data not finally accepted.

VHR OIR: all MS contractors delivered. Some image files need to be substituted (not readable) or re-delivered due to incompleteness (mosaics). This issue is still ongoing and if necessary JRC or EUSI will contact you.

- **CAP data 2014:**

Source: 10,8 TB

Ortho VHR: 7,2 TB

Ortho HR: 1,5 - 1,6 TB

- **CID portal and Big Data**

CID portal presently contains approx. 150 TB of EO data (not only CAP data)

CID portal => development into a new architecture (storage, processing, access)

Image return to JRC

- **Requests for 2015**

HR / VHR Ortho Image Return from MS contractors to HR / VHR Image Providers (FWCs):
Image files **only** as uncompressed GeoTiff (.TIF) or Erdas Imagine (.IMG) format allowed.

Compressed formats like ECW, MrSID will not be accepted.

Ortho Image files must contain a Coordinate Reference System (CRS).

- **Metadata XML files shall contain:**

1. Ortho image file name
2. Zone name
3. Acquisition batch ID (AR_ID) or Acquisition ID
4. Platform name and version
5. Coordinate Reference System as EPSG code and/or WKT
6. Band order with respect to the original sensor bands
7. Acquisition date and time

Items in **red** are essential to know for the Image Providers and JRC, to accept and to manage Ortho Image Return (OIR) from MS.

Miscellaneous issues (both VHR and HR)

General – communication

- Always communicate your's and your contractors' point of contact to EUSI, and Airbus ASAP
- Always communicate window changes due to adverse climate or hazards asap to EUSI, and Airbus ASAP
- Always communicate to EUSI, and Airbus when there is interaction needed due to e.g. an aerial window opening/closing.

NG-LIO.NET

- React fast in NG-LIO.NET since delivery is by validated acquisition (no need to wait for a whole control zone to be covered, no need to wait for any ordering); a confirm of area of imagery delivered is required quickly in order to receive imagery fast.
- Set your e-mail notifications correctly so you get right e-mails !
- Pls. EUSI and Airbus communicate when there is interaction needed between window openings HR/VHR (including aerial)

...at last: what are the goals of the “outsourcing”

The awarded framework contractor/s (EUSI, and Airbus) will take all necessary measures to:

- reach the goal of minimum 95% success rate of image supply on time, according to specifications
- ensure a successful communication and liaison between stakeholders
- ensure a correct treatment of confidentiality / sensitivity issues, and avoidance of conflict of interest

The tenders for HHR and VHRplus profiles have not been awarded yet.



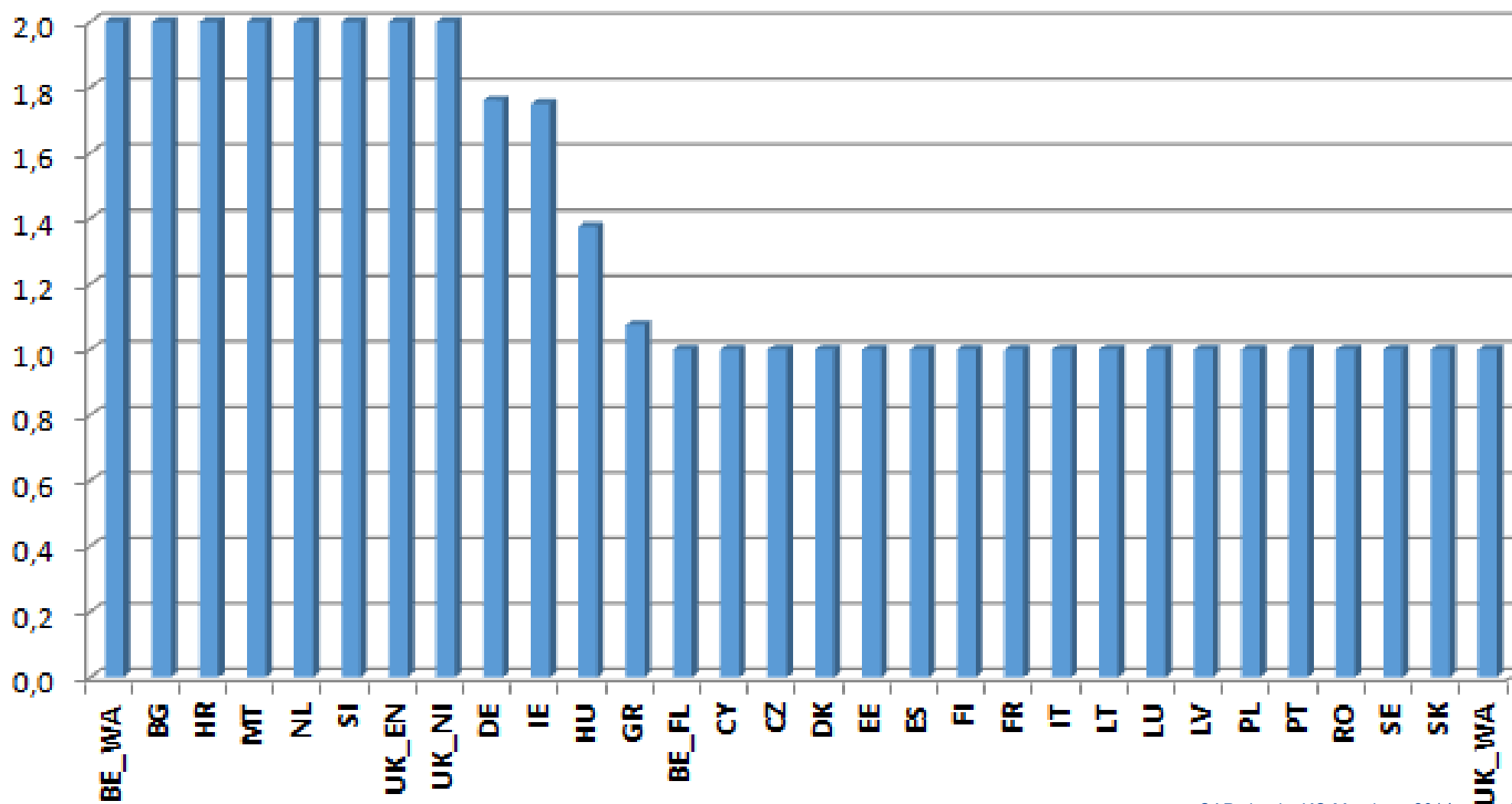
In collaboration with DG AGRI / GTCAP

In collaboration with the FW Contractors: EUSI, Airbus, and their sub-contractors

In collaboration with all of you MS Administrations, and your contractors

Thank you!

Average number of VHR windows per zone



Average number of HR windows per zone

