

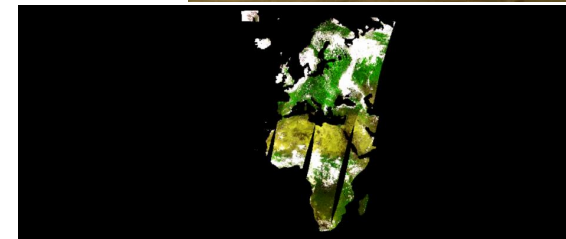
QWG 12 – Payload Data Ground Segment Status

D. Clarijs



PDGS Highlights since QWG #11

- End of operational lifetime:
 - ELSM update active on July 1st, 2020
 - Operational – Experimental outreach
 - Quality operators reduced - timeliness impact
- Collection 2 preparations
 - A/C integration
 - Hardware procurement
- Experimental mission support
 - Super resolution
 - Moon acquisitions
- PROBA-V CC PDGS impact study initiated



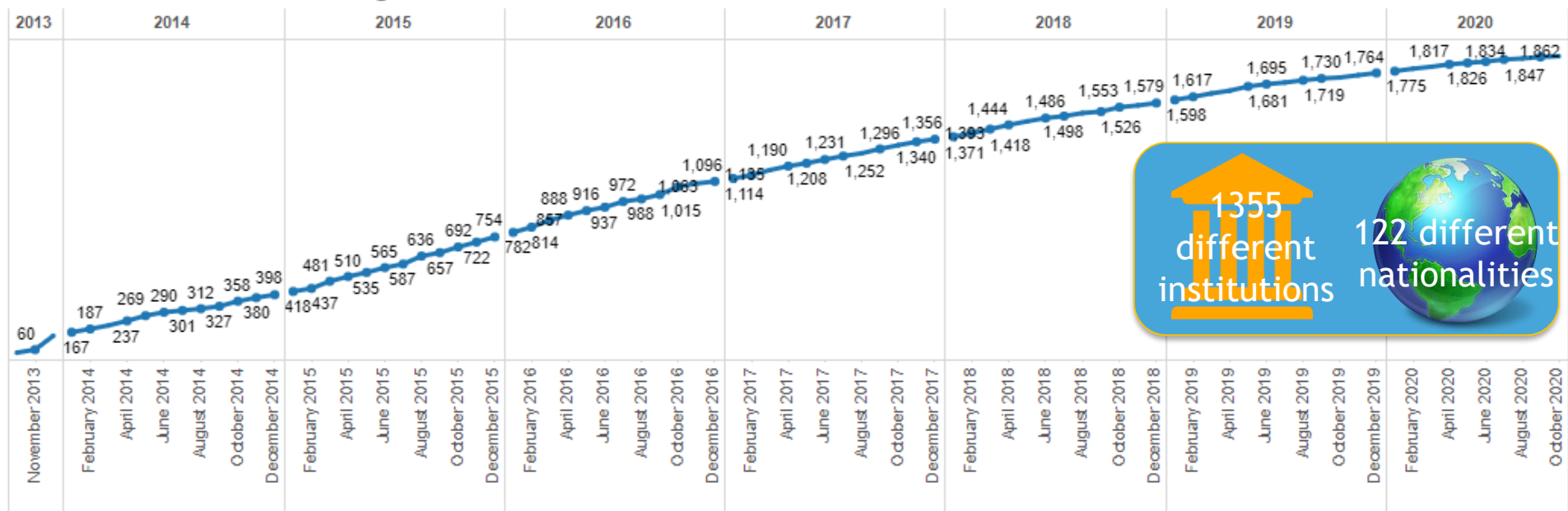


USER SEGMENT STATISTICS



PROBA-V user registrations

PROBA-V Evolution User Registration



1355 different institutions

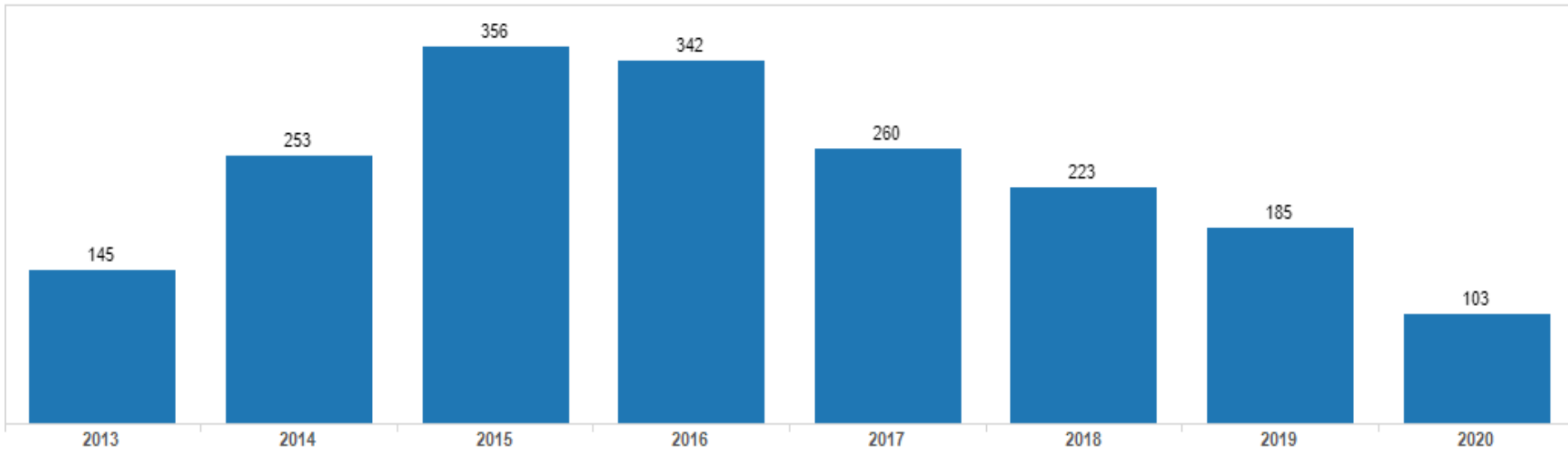
122 different nationalities

+34 new registered users since last QWG



PROBA-V evolution user registrations per year

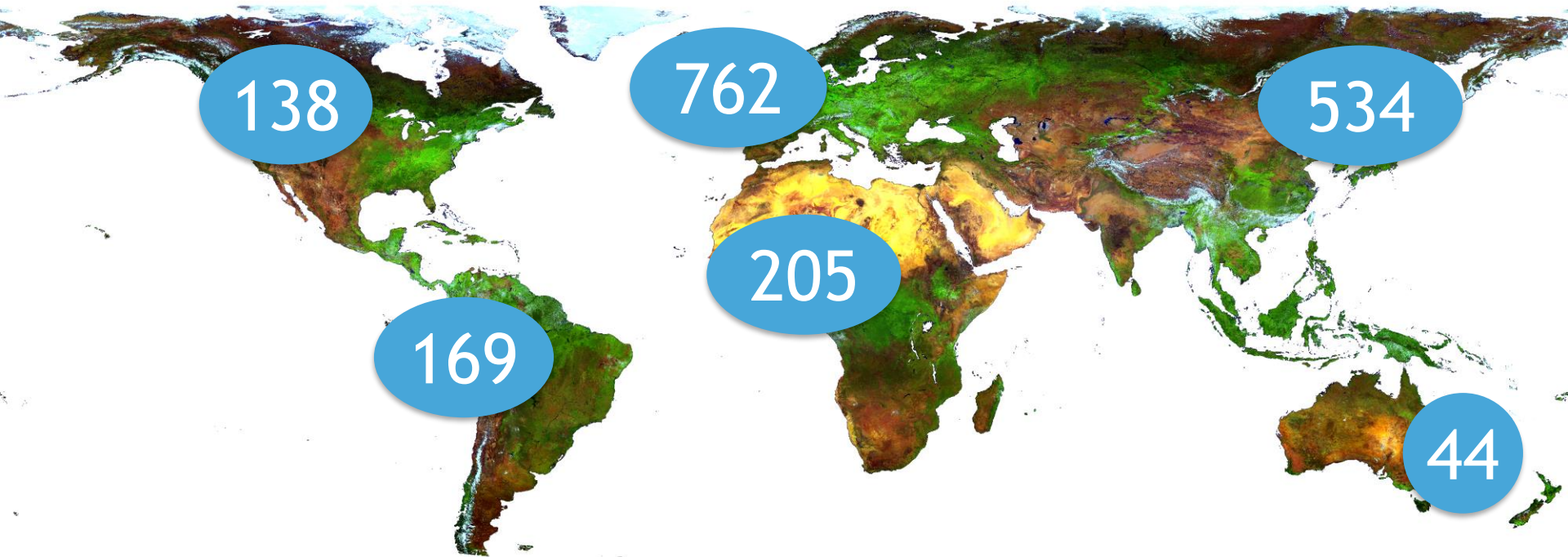
PROBA-V Evolution user Registrations per Year





Geographical spread of PROBA-V users

Spread of users on 22/10/2020





Top 20 user companies & countries (since QWG #11)

1	EOSENSE	UNITED KINGDOM	5,716
2	IGSNRR	CHINA	1,785
3	PEKING UNIVERSITY	CHINA	1,178
4	UCLOUVAIN	BELGIUM	950
5	IRRI	INDIA	796
6	AGRICULTURE MINISTRY OF INDONES..	INDONESIA	758
7	KIGAM	KOREA (SOUTH)	733
8	VITO	BELGIUM	698
9	JOINT RESEARCH CENTRE	ITALY	653
10	ESA	ITALY	600
11	CSA	ETHIOPIA	551
12	BAYERO UNIVERSITY KANO	NIGERIA	547
13	-	ITALY	474
14	-	NAMIBIA	31
15	DESCARTES UNDERWRITING	FRANCE	451
16	EWHA WOMANS UNIVERSITY	KOREA (SOUTH)	397
17	CAS	CHINA	366
18	GOOGLE	UNITED STATES	345
19	UPMC	FRANCE	343
20	ILE SAS	SLOVAK REPUBLIC	332
21	DHI	DENMARK	320

Top 20 companies 26/06/2020 - 22/10/2020

1	UNITED KINGDOM	5,749
2	CHINA	4,228
3	ITALY	1,727
4	BELGIUM	1,649
5	KOREA (SOUTH)	1,262
6	FRANCE	1,036
7	INDIA	823
8	INDONESIA	762
9	ETHIOPIA	551
10	NIGERIA	547
11	DENMARK	383
12	UNITED STATES	346
13	SLOVAK REPUBLIC	332
14	PAKISTAN	250
15	JAPAN	224
16	HUNGARY	190
17	BRAZIL	155
18	POLAND	145
19	IRAN	91
20	KENYA	80

Top 20 countries 26/06/2020 - 22/10/2020



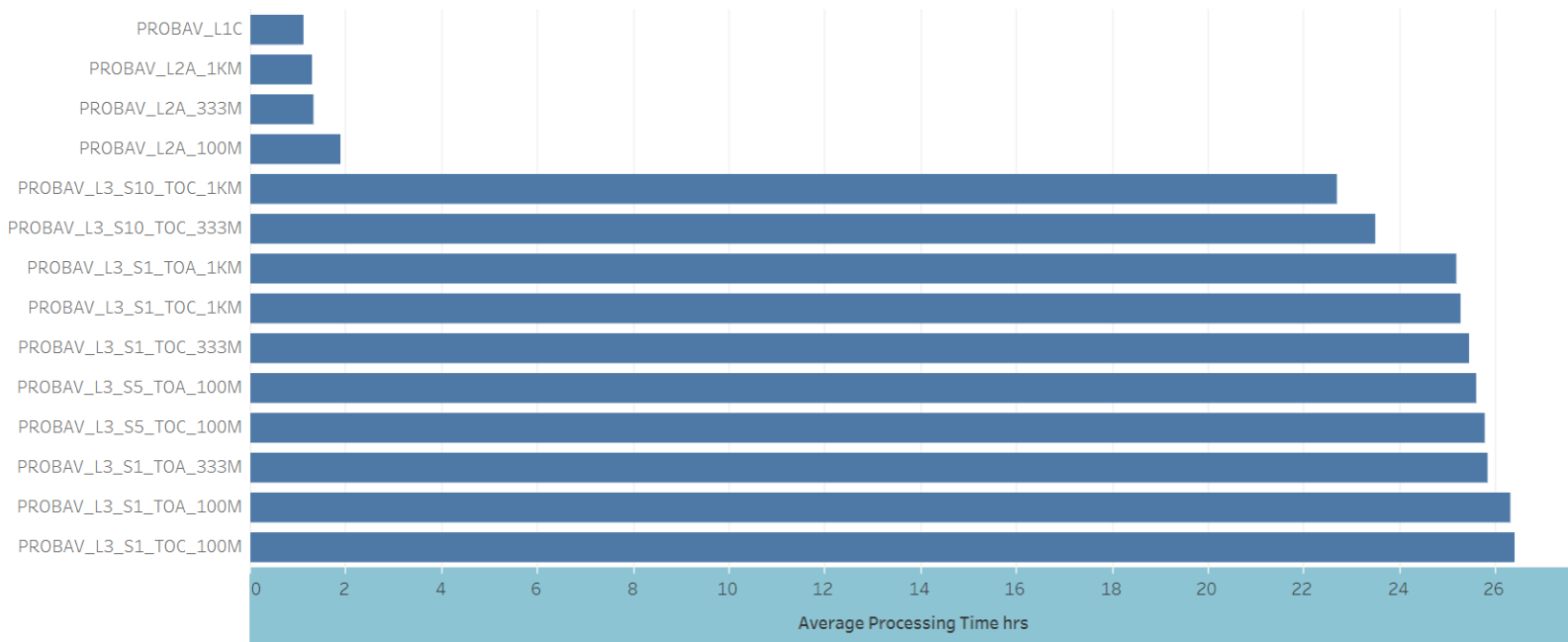
Product downloads: Since QWG #11

	Africa	Asia	Europe	N-America	S-America	Grand Total
PROBA-V Level 1C		58	6,299			6,357
PROBA-V Level 2A 1KM Antarctica				1		1
PROBA-V Level 2A 100M		581	340			921
PROBA-V Level 2A 300M			5			5
PROBA-V S1 1KM TOA		2	244			246
PROBA-V S1 1KM TOC		367	496			863
PROBA-V S1 100M TOA		98	320			418
PROBA-V S1 100M TOC		382	1,027	176	27	1,612
PROBA-V S1 100M TOC NDVI	47	503	279			829
PROBA-V S1 300M TOA	3	5	239		153	400
PROBA-V S1 300M TOC	4		595	171		770
PROBA-V S5 100M TOA		67				67
PROBA-V S5 100M TOC	40	272	522		1	835
PROBA-V S5 100M TOC NDVI	31	754	157		9	951
PROBA-V S10 1KM TOC	15	1,371	11	1		1,398
PROBA-V S10 300M TOC	22	732	143			897
PROBA-V S10 NDVI 1KM TOC	1,185	2,645	244		2	4,076
PROBA-V S10 NDVI 300M TOC		30	889		6	925
Grand Total	1,347	7,867	11,810	349	198	21,571



Data timeliness from QWG #11

Average Processing Times (hrs)





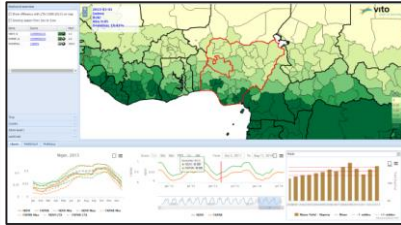
MEP application statistics since QWG #11

Geo Viewer



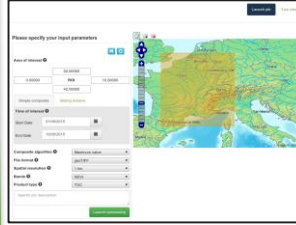
239 users
257 sessions
149 new users

Time Series Viewer



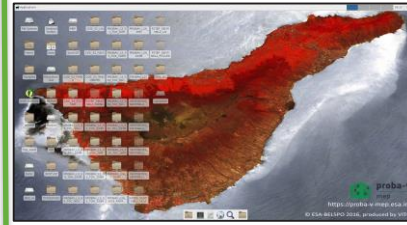
147 users
245 sessions
70 new users

N-Daily Composer



25 users

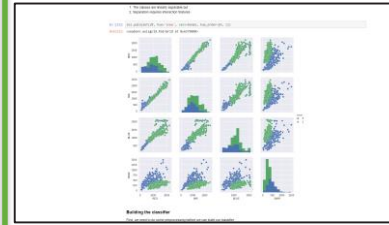
Virtual Machines



Total user VMs: 227
Active user VMs: 111
Growth : + 34



Jupyter Notebooks



274 users total
Growth: + 114

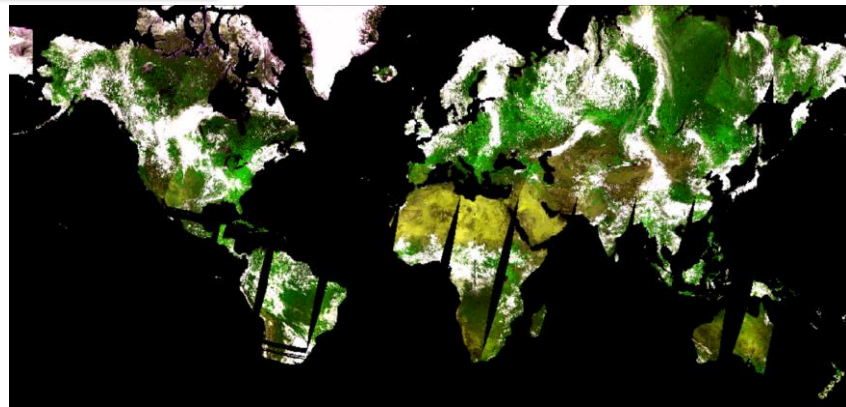




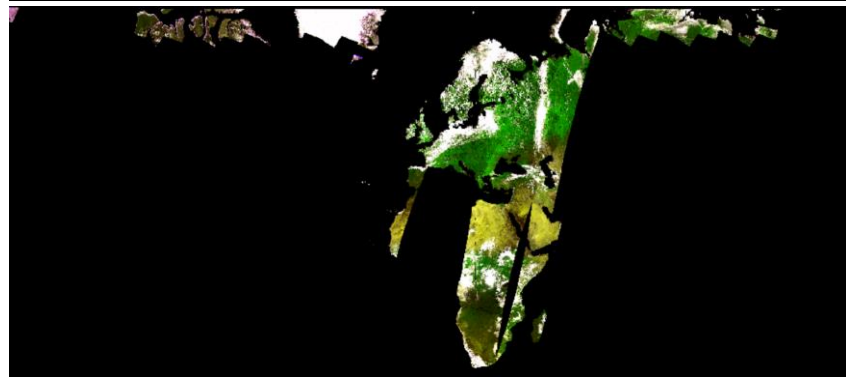
ANOMALIES



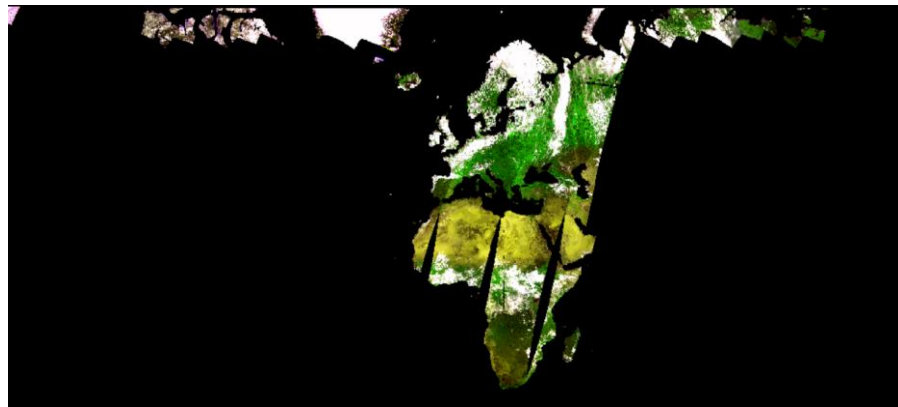
Nominal – experimental mode: ELSM impact



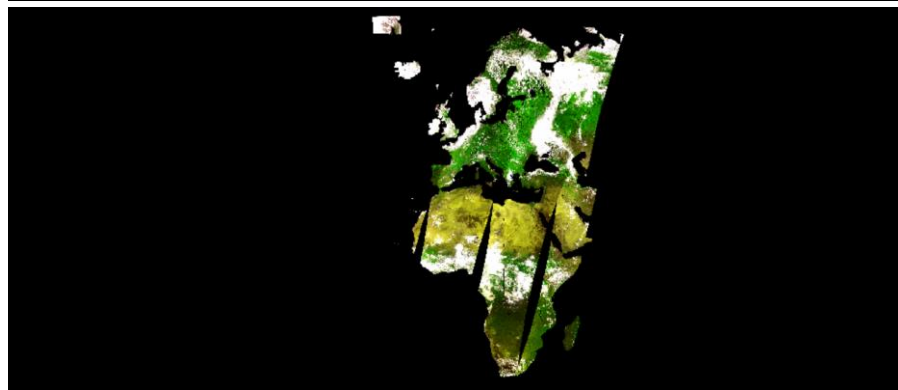
30 June 2020



10 July 2020



1 July 2020



14 July 2020



Decompression errors evolution

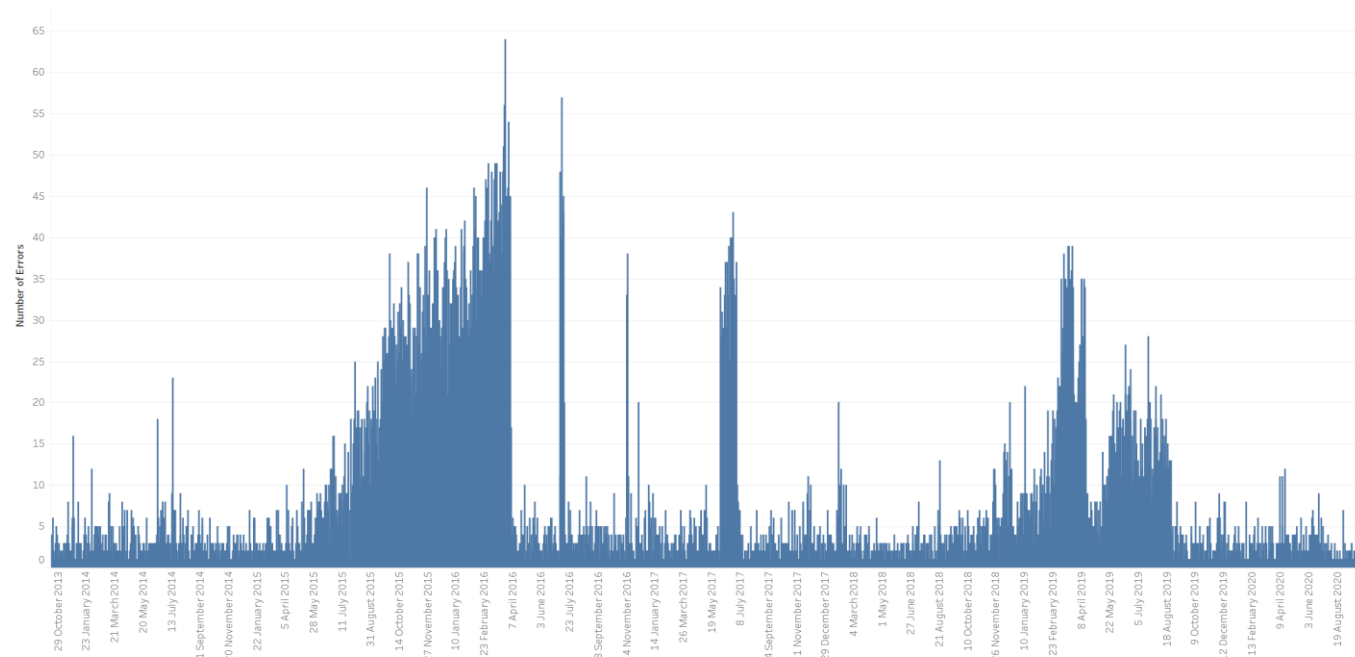
Synthesisdater

14/10/2013

22/10/2020

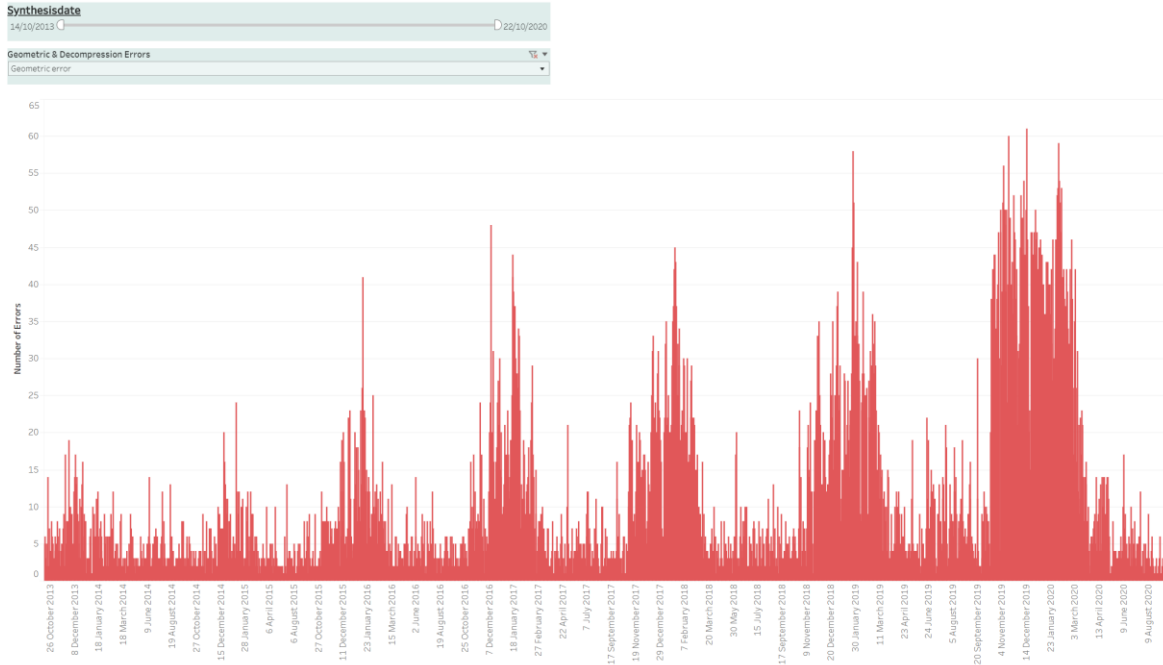
Geometric & Decompression Errors

Decompression error

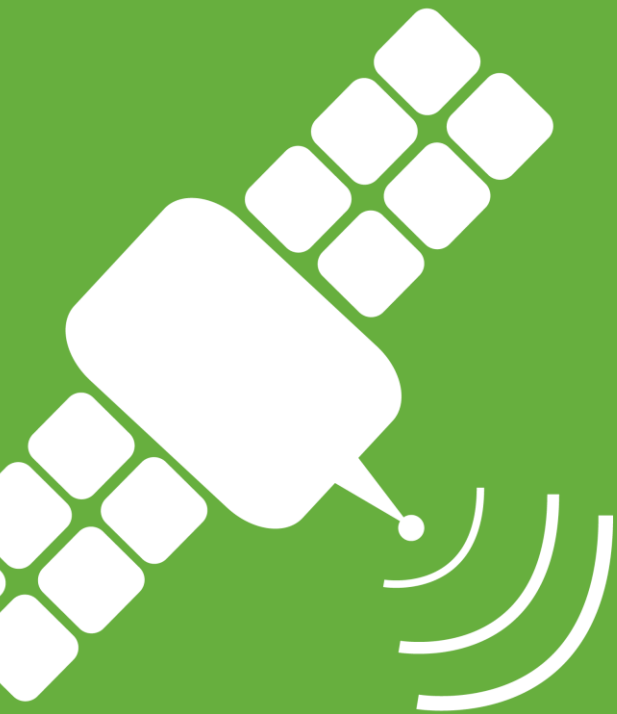




Geometric Errors evolution



- Seasonal effect
- Impact estimation too high
- Only during wintertime
- Missing pixels app to be update



SPECIAL ACQUISITIONS



Super resolution experiment

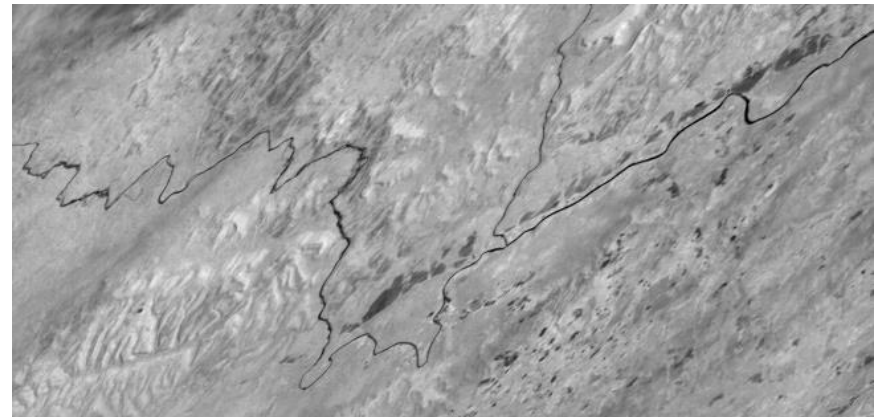
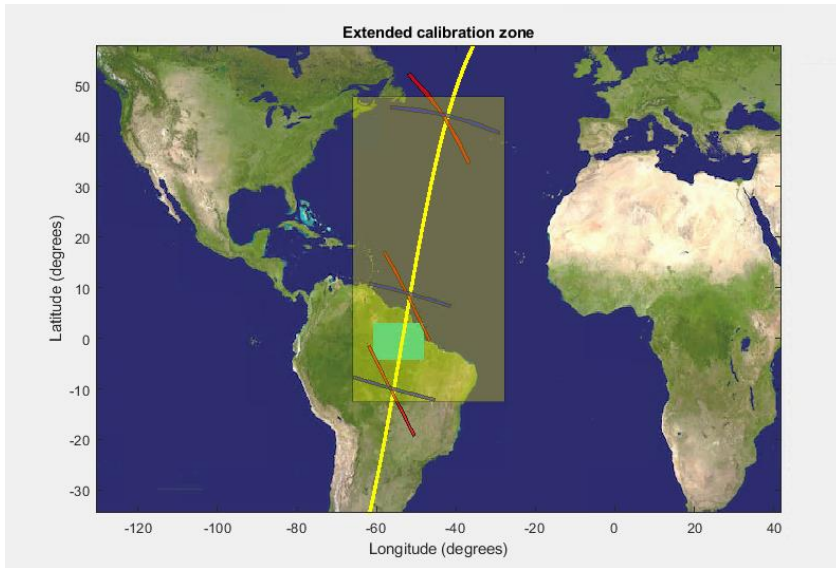
Date of acquisition: 22-10-2020

Location: Amazonian site

Yaw angle: $45^\circ \sim 75\text{m}$ eff resolution

Cloud coverage ok

Processed up to L1A





Lunar calibration acquisition

Acquisition of moon calibration ongoing from 23/10/2020 – 03/11/2020



masks



green : 90° phase
blue : 80° phase
black : 70° phase

THANK YOU

remotesensing.vito.be