QA4ECV USER REQUIREMENTS

1. Which of the following options best describes the industry you work in?

	Response Percent	Response Count
National government	24.0%	40
International government	6.6%	11
Academic/University	**41.9%**	**70**
Commercial	15.0%	25
Non-Govermental Organisation / Not-for-Profit	2.4%	4
Space agency	6.0%	10
Other	4.2%	7
Other (please specify)		7
answered question		**167**
skipped question		**0**

2. Which of the following options best describes the target audience of your work?

	Response Percent	Response Count
Decision-support (Commercial)	7.2%	12
Decision-support (Government)	29.9%	50
Scientific community	**58.1%**	**97**
Other	4.8%	8
Other (please specify)		8
answered question		**167**
skipped question		**0**

3. Which parameter do you use most frequently?

	Response Percent	Response Count
Albedo	14.4%	24
fAPAR	10.2%	17
LAI	17.4%	29
Sea Surface Temperature	6.6%	11
Sea Level	1.8%	3
Sea State	1.8%	3
Ocean currents	0.6%	1
Ocean colour	1.8%	3
Other	**45.5%**	**76**
	Other (please specify)	77
	answered question	**167**
	skipped question	**0**

4. Please list the products you use.

	Response Count
	80
answered question	**80**
skipped question	**87**

5. Please indicate the products that you use.

	Response Percent	Response Count
GlobAlbedo Institution: UCL-MSSL	5.6%	1
Geoland-2 Albedo, derived from VEGETATION-2 SPOT-5 Institution: VITO / Geoland2	22.2%	4
Surface albedo, derived from POLDER 1-2 ADEOS1-2 Institution: CNES	5.6%	1
Surface albedo, derived from POLDER 1-2, ADEOS 1-2, POLDER-3 Institution: POSTEL	5.6%	1
Surface Albedo, derived from CERES TERRA/AQUA Institution: NASA - Langley	11.1%	2
Surface Albedo, derived from MODIS TERRA/AQUA Institution: GSFC LPDAAC	**61.1%**	**11**
Surface Albedo, derived from MISR TERRA Institution: NASA - JPL	11.1%	2
Geoland Albedo, derived from VEGETATION-1/2 SPOT-4/5 Institution: POSTEL	5.6%	1
Surface Albedo, derived from MSG SEVERI Institution: EUMETSAT	16.7%	3
Surface Albedo, derived from METEOSAT 2-7 Institution: EUMETSAT	11.1%	2
Surface albedo, derived from MERIS Institution: Brockmann Consult	11.1%	2
Geoland Albedo, derived from VEGETATION-2 SPOT-5 Institution: VITO / Geoland	11.1%	2
Other	11.1%	2
	Other (please specify)	2

	answered question	**18**
	skipped question	**149**

6. Please indicate the products that you use.

		Response Percent	Response Count
FPAR, derived from AVHRR Institution: GSFC LPDAAC		17.6%	3
FAPAR, derived from MERIS Institution: JRC/ESA		**41.2%**	**7**
CYCLOPES FPAR V3.1, derived from VEGETATION Institution: POSTEL		35.3%	6
Geoland2 FAPAR, derived from VEGETATION Institution: Geoland2 - EC		35.3%	6
Gap-Filled, Smoothed FPAR, derived from MODIS Institution: NASA GSFC		5.9%	1
FPAR, derived from MODIS TERRA/AQUA Institution: GSFC LPDAAC		35.3%	6
FAPAR, derived from Meteosat (MSG) Institution: LandSAF		0.0%	0
FAPAR, derived from SeaWIFS Institution: JRC		11.8%	2
TIP FAPAR, derived from MODIS Institution: FastOpt		23.5%	4
TIP FAPAR, derived from GlobAlbedo Institution: FastOpt		5.9%	1
Geoland FAPAR, derived from VEGETATION Institution: Geoland – EC		11.8%	2
Other		29.4%	5
		Other (please specify)	5

answered question	**17**

skipped question		**150**

7. Please indicate the products that you use.

	Response Percent	Response Count
TIP LAI, derived from MODIS Institution: JRC	8.7%	2
Geoland LAI, derived from VEGETATION Institution: Geoland EC	4.3%	1
LAI, derived from AVHRR Institution: GSFC LPDAAC	8.7%	2
LAI, derived from POLDER-2 Institution: CNES	0.0%	0
GlobCarbon LAI, derived from Multi-source Institution: ESA	4.3%	1
Geoland2 LAI, derived from VEGETATION Institution: Geoland2 - EC	8.7%	2
CYCLOPES LAI V3.1, derived from VEGETATION Institution: POSTEL	4.3%	1
eMODIS LAI, derived from MODIS TERRA/AQUA Institution: USGS-EOS	17.4%	4
LAI, derived from MODIS TERRA/AQUA Institution: GSFC LPDAAC	**43.5%**	**10**
Gap-Filled, Smoothed LAI, derived from MODIS Institution: NASA GSFC	13.0%	3
LAI, derived from MODIS Institution: Beijing Normal University	17.4%	4
LAI, derived from VEGETATION/AHVRR Institution: CCRS	8.7%	2
Geoland LAI, derived from VEGETATION Institution: POSTEL	4.3%	1

University of Toronto 2003 LAI, derived from VEGETATION/MERIS Institution: University of Toronto		8.7%	2
Leaf Area index, derived from MSG/SEVIRI Institution: LandSAF		21.7%	5
LAI, derived from Severi/AVHRR Institution: EUMETSAT SAF		8.7%	2
Other		21.7%	5
		Other (please specify)	6

answered question	**23**
skipped question	**144**

8. What is your main application of this product?

	Response Percent	Response Count
Radiation balance	13.1%	16
Fire	17.2%	21
Land cover	**41.0%**	**50**
Climate modelling	25.4%	31
Weather monitoring	13.1%	16
Agriculture	29.5%	36
Forestry	22.1%	27
Urban	7.4%	9
Water	21.3%	26
Disturbance	8.2%	10
Carbon modelling	19.7%	24
Ecosystem productivity modelling	23.0%	28
Phenology	25.4%	31
Invasive species	4.1%	5
Pest/infestation	0.8%	1
Pollution monitoring	2.5%	3
Storm surges	2.5%	3
Renewable energy potential	1.6%	2
Other	15.6%	19
	Other (please specify)	26

answered question	**122**
skipped question	**45**

9. Time-step of application: How frequently do you need new data?

	Response Percent	Response Count
Daily	**41.8%**	**51**
Weekly	20.5%	25
8-day	11.5%	14
10-day	9.0%	11
Bi-weekly	4.9%	6
16-day	7.4%	9
Monthly	27.9%	34
Annual	22.1%	27
Other	10.7%	13
Other, please specify (i.e. growing season averages etc)		20
answered question		**122**
skipped question		**45**

10. Temporal range of data required for analysis:

	Response Percent	Response Count
Individual dates	18.0%	22
<=1 year of data	9.8%	12
>1 year of data	25.4%	31
Entire record available	**65.6%**	**80**
Other	4.9%	6
Other (please specify)		8
answered question		**122**
skipped question		**45**

11. Spatial resolution of data required for analysis:

		Response Percent	Response Count
Use pixel resolution as is		**79.5%**	**97**
Aggregate over an area		33.6%	41
Other		9.8%	12
		Other (please specify)	16
		answered question	**122**
		skipped question	**45**

12. Spatial extent of data required for analysis:

		Response Percent	Response Count
Site analysis		40.2%	49
Region		**58.2%**	**71**
Continental		27.0%	33
Global		42.6%	52
Biome		11.5%	14
Specific land cover classification		14.8%	18
Other		1.6%	2
		Other (please specify)	4
		answered question	**122**
		skipped question	**45**

13. Do you use specific spectral bands? If yes, please indicate which wavelength ranges do you use?

	Response Count
	57
answered question	**57**
skipped question	**110**

14. Does the end user of your work request/require any quality information?

		Response Percent	Response Count
Yes		**79.5%**	**97**
No		14.8%	18
Don't know		5.7%	7
	answered question		**122**
	skipped question		**45**

15. Do you think they should require quality information?

		Response Percent	Response Count
Yes		**92.6%**	**113**
No		3.3%	4
Don't know		4.1%	5
	answered question		**122**
	skipped question		**45**

16. Please indicate below.

	Very Important	Important	Indifferent	Unimportant	Rating Average	Rating Count
How important is it to you and for your application that you know the nature of the entire processing chain of the dataset you are using?	**67.2% (78)**	27.6% (32)	3.4% (4)	1.7% (2)	3.60	116
How important is it to you that this information is available?	**73.7% (84)**	21.9% (25)	3.5% (4)	0.9% (1)	3.68	114
				answered question		**118**
				skipped question		**49**

17. Is this information easily accessible?

		Response Percent	Response Count
Yes		27.1%	32
No		**53.4%**	**63**
Don't know		19.5%	23
		answered question	**118**
		skipped question	**49**

18. If this documentation was more easily accessible would you use it? (e.g. to find out about look up table values, land cover classifications etc.)

		Response Percent	Response Count
Yes		**89.5%**	**77**
No		10.5%	9
		answered question	**86**
		skipped question	**81**

19. As you answered yes to the previous question, please explain how you would use this information.

	Response Count
	75
answered question	75
skipped question	92

20. As you answered yes to the previous question, please explain where you obtain this information.

	Response Count
	32
answered question	32
skipped question	135

21. Does the product you use contain quality indicators?

		Response Percent	Response Count
Yes		67.8%	78
No		32.2%	37
answered question			115
skipped question			52

22. Do you make use of these quality indicators ?

		Response Percent	Response Count
Yes		**90.0%**	**72**
No		10.0%	8
		answered question	**80**
		skipped question	**87**

23. As you answered yes to the previous question, please tell us how you make use of the quality indicators? (e.g thresholding, masking etc)

	Response Count
	69
answered question	**69**
skipped question	**98**

24. As you answered no to the previous question, please tell us why don’t you utilise the information provided in the quality indicators?

	Response Count
	9
answered question	**9**
skipped question	**158**

25. Are the quality indicators contained in the product sufficient for your application?

		Response Percent	Response Count
Yes		**71.0%**	**49**
No		29.0%	20
	answered question		**69**
	skipped question		**98**

26. As you answered no to the previous question, please explain why.

	Response Count
	20
answered question	**20**
skipped question	**147**

27. What information would you like to see provided as a quality indicator?

		Response Percent	Response Count
Cloud contamination		44.6%	29
Cloud shadow		35.4%	23
Aerosol contamination		29.2%	19
Backup algorithm		21.5%	14
Algorithm failure		33.8%	22
Sensor (drop out, striping)		43.1%	28
Saturation		30.8%	20
Sun glint		20.0%	13
Gap filling, temporal filling, interpolation		40.0%	26
All of the above		**64.6%**	**42**
Other		15.4%	10
		Other (please specify)	11
		answered question	**65**
		skipped question	**102**

28. What additional information would you like to see provided as a quality indicator for your product?

		Response Percent	Response Count
Cloud contamination		53.1%	26
Cloud shadow		51.0%	25
Aerosol contamination		36.7%	18
Retrieval algorithm or backup algorithm		28.6%	14
Algorithm failure		40.8%	20
Sensor (drop out, striping)		44.9%	22
Saturation		44.9%	22
Sun glint		38.8%	19
Gap filling, temporal filling, interpolation		**59.2%**	**29**
Other		24.5%	12
		Other (please specify)	9
		answered question	**49**
		skipped question	**118**

29. Do the products you use include uncertainty values or a statement of confidence associated with the variables contained within those products?

		Response Percent	Response Count
Yes		37.8%	42
No		**62.2%**	**69**
		answered question	**111**
		skipped question	**56**

30. If uncertainty information was provided, how useful would it be to you?

	Very Useful	Useful	Indifferent	Not Useful	Don't know	Rating Average	Rating Count
	56.5% (39)	36.2% (25)	4.3% (3)	1.4% (1)	1.4% (1)	1.55	69
					answered question		**69**
					skipped question		**98**

31. Do you make use of this uncertainty information?

		Response Percent	Response Count
Yes		**86.4%**	**38**
No		13.6%	6
	answered question		**44**
	skipped question		**123**

32. How is the uncertainty information provided? (e.g. per pixel, by scene etc)

	Response Count
	39
answered question	**39**
skipped question	**128**

33. How is the uncertainty value provided? (e.g. %, in product units, etc.)

	Response Count
	39
answered question	**39**
skipped question	**128**

34. How do you make use of them? (e.g. weighting, data assimilation etc.)

	Response Count
	39
answered question	39
skipped question	128

35. Why don't you make use of the uncertainty information?

	Response Count
	7
answered question	7
skipped question	160

36. What uncertainty information would you want? (e.g. per pixel, per scene etc.)

	Response Count
	71
answered question	71
skipped question	96

37. How would you make use of this? (e.g. weighting, data assimilation, thresholding/masking etc.)

	Response Count
	71
answered question	71
skipped question	96

38. Would you value advice on how to evaluate uncertainty in your application? (e.g. forum in which to ask questions, share best practices etc.)

	Response Percent	Response Count
Yes (please leave your details at the end of this survey)	**63.3%**	**69**
No	36.7%	40
	answered question	**109**
	skipped question	**58**

39. Is (are) the product(s) you use validated for your application?

	Response Percent	Response Count
Yes	**53.2%**	**58**
No	22.9%	25
Don't know	23.9%	26
	answered question	**109**
	skipped question	**58**

40. Is the validation information (i.e. detailed description of the validation method, study region etc.) available?

	Response Percent	Response Count
Yes	**58.6%**	**34**
No	20.7%	12
Don't know	20.7%	12
	answered question	**58**
	skipped question	**109**

41. Who is (are) the product(s) validated by? E.g. data producer, user, independent validation team.

	Response Count
	57
answered question	57
skipped question	110

42. Is the validation reference data available for public use?

	Response Percent	Response Count
Yes	41.4%	24
No	29.3%	17
Don't know	29.3%	17
answered question		58
skipped question		109

43. What do you think of the overall quality of the product validation documentation (completeness, intelligibility)?

	Response Count
	24
answered question	24
skipped question	143

44. What do you think about the validation approach used? (assumptions, scaling etc.)

	Response Count
	24
answered question	**24**
skipped question	**143**

45. What do you think about the quality/uncertainty of the reference data used to validate the product?

	Response Count
	24
answered question	**24**
skipped question	**143**

46. Do you independently validate the product(s) that you use?

		Response Percent	Response Count
Yes		**56.5%**	**61**
No		43.5%	47
answered question			**108**
skipped question			**59**

47. As you answered yes to the previous question, please indicate how you conduct the product validation.

	Response Count
	62
answered question	**62**
skipped question	**105**

48. Would best practice guidelines (a set of documents describing the state-of-the-art, community agreed optimal method/s for undertaking a particular activity) for doing independent validation be useful to you?

	Response Percent	Response Count
Yes	**93.5%**	**100**
No	6.5%	7
answered question		**107**
skipped question		**60**

49. Are you aware of the principles of the Quality Assurance framework for Earth Observation (QA4EO)?

	Response Percent	Response Count
Yes	37.7%	40
No	**62.3%**	**66**
answered question		**106**
skipped question		**61**

50. Would you like to know the results of this survey?

	Response Percent	Response Count
Yes	**84.9%**	**90**
No	15.1%	16
answered question		**106**
skipped question		**61**

51. Name

	Response Count
	89
answered question	89
skipped question	78

52. Email address

	Response Count
	89
answered question	89
skipped question	78

53. If you have any comments about this survey, please provide them below.

	Response Count
	24
answered question	24
skipped question	143

Page 1, Q1. Which of the following options best describes the industry you work in?		
1	Weather Service	Mar 4, 2014 12:09 PM
2	State Government	Feb 27, 2014 6:03 AM
3	not for profit research organisation	Feb 24, 2014 11:11 PM
4	NASA/GSFC and UMBC	Feb 24, 2014 6:44 PM
5	1	Feb 24, 2014 3:17 PM
6	State government	Feb 23, 2014 10:48 PM
7	State Government	Feb 21, 2014 4:34 AM

Page 1, Q2. Which of the following options best describes the target audience of your work?		
1	If possible, i would like to add decision-support for government. Nowadays, it is important to recognize this need in the academia as well.	Apr 22, 2014 1:00 PM
2	Both + Scientific com.	Apr 17, 2014 2:37 PM
3	All of them equally well	Mar 17, 2014 12:03 PM
4	All above	Mar 7, 2014 3:47 PM
5	all of the above	Feb 27, 2014 12:04 PM
6	Private investment impact assessment	Feb 25, 2014 12:52 PM
7	1	Feb 24, 2014 3:17 PM
8	All of the above	Feb 21, 2014 3:52 AM

Page 1, Q3. Which parameter do you use most frequently?		
1	surface reflectances	Apr 25, 2014 5:04 PM
2	Soil Moisture	Apr 22, 2014 1:00 PM
3	Vegetation indices (NDVI, EVI)	Apr 18, 2014 10:08 AM
4	NDVI	Apr 18, 2014 7:53 AM
5	lake and river water surface levels	Apr 17, 2014 5:11 PM
6	albedo, ocean currents and ocean colour. There is a large range of users	Apr 17, 2014 2:37 PM
7	soil moisture	Apr 17, 2014 2:25 PM
8	soil type	Apr 17, 2014 12:36 PM
9	Land elevation	Apr 16, 2014 5:08 PM
10	Land cover, fire, snow	Apr 14, 2014 5:48 PM
11	all of the above... but instead of fAPAR and LAI, I tend to use NDVI and EVI provided by NASA systems (much easier to use). I dont use albeido however.	Mar 19, 2014 12:29 PM
12	satellite altimeter wavform	Mar 17, 2014 9:31 PM
13	SWH	Mar 17, 2014 6:38 PM
14	Waves	Mar 17, 2014 12:55 PM
15	Ocean wind	Mar 17, 2014 12:03 PM
16	Atmospheric Composition	Mar 17, 2014 10:02 AM
17	vegetation vigor (an indicator of relatively high LAI and relatively high leaf chlorophyll concentratoin	Mar 14, 2014 7:28 PM
18	calibrated reflectance	Mar 14, 2014 5:27 PM
19	multispectral values	Mar 14, 2014 4:27 PM
20	Brightness Temperature	Mar 14, 2014 9:46 AM
21	I use SST so its a marine parameter	Mar 12, 2014 9:15 AM
22	All ECVs related with Temperature and Atmospheric composition	Mar 7, 2014 12:41 PM
23	LSTNDVI	Mar 6, 2014 3:56 PM
24	Surface Reflectance	Mar 4, 2014 3:14 PM
25	snow cover, albedo	Mar 4, 2014 12:09 PM
26	Surface reflectance	Feb 28, 2014 10:34 AM
27	NDVI, NDWI, LAI, ground reflectance	Feb 28, 2014 9:19 AM
28	Thematic land cover classification	Feb 27, 2014 7:12 PM

Page 1, Q3. Which parameter do you use most frequently?		
29	rain rate	Feb 27, 2014 3:29 PM
30	Land Surface Temperature	Feb 27, 2014 12:41 PM
31	we provide software for image processing to the market (ERDAS Imagine) in the UK - lai is used as is ndvi and a range of other band ratio techniques along with extensive use of classification	Feb 27, 2014 12:04 PM
32	Radar products - and simple RGB optical images	Feb 27, 2014 11:38 AM
33	maritime applications only	Feb 27, 2014 10:49 AM
34	reflectance	Feb 27, 2014 10:46 AM
35	LST, land cover	Feb 27, 2014 10:20 AM
36	AMSRE Microwave Vegetation Optical Depth, LAI, EVI, NDVI	Feb 26, 2014 7:39 PM
37	soil moisture,	Feb 26, 2014 6:09 PM
38	LST	Feb 26, 2014 5:31 PM
39	burned area, land cover	Feb 26, 2014 4:57 PM
40	NDVI and	Feb 26, 2014 2:14 PM
41	Surface reflecatnce, surface emissivity	Feb 26, 2014 11:37 AM
42	Textural characteristics on VHR imagery Temporal patterns of vegetation indices	Feb 26, 2014 9:40 AM
43	Soil Moisture	Feb 26, 2014 1:51 AM
44	Generally supervised classifications by reference areas. Otherwise library of spectral signatures of relevant land covers. Rarely NDVI.	Feb 25, 2014 12:52 PM
45	None	Feb 25, 2014 11:42 AM
46	Tree biomass	Feb 25, 2014 9:56 AM
47	LST&E	Feb 25, 2014 9:27 AM
48	NDVI	Feb 25, 2014 8:50 AM
49	evapotranspiration, soil moisture	Feb 24, 2014 11:11 PM
50	temperature, emissivity & BRDF	Feb 24, 2014 10:02 PM
51	reflactance, burned area	Feb 24, 2014 9:06 PM
52	Surface reflectance	Feb 24, 2014 8:27 PM
53	reflectance	Feb 24, 2014 6:44 PM
54	GPP/NPP	Feb 24, 2014 6:37 PM
55	NDVI, EVI	Feb 24, 2014 6:33 PM

Page 1, Q3. Which parameter do you use most frequently?		
56	Mainly water parameters: Remote sensing reflectance	Feb 24, 2014 6:01 PM
57	Spectral reflectance	Feb 24, 2014 5:31 PM
58	soil moisture	Feb 24, 2014 5:20 PM
59	surface spectral radiance & reflectance	Feb 24, 2014 4:53 PM
60	Land Surface Temperature	Feb 24, 2014 4:42 PM
61	land cover	Feb 24, 2014 4:40 PM
62	land cover	Feb 24, 2014 4:03 PM
63	None	Feb 24, 2014 3:28 PM
64	1	Feb 24, 2014 3:17 PM
65	Land cover	Feb 24, 2014 9:54 AM
66	I am working with marine satellite products, mainly	Feb 24, 2014 9:48 AM
67	albdo	Feb 24, 2014 4:43 AM
68	various - no focus - depends on activity	Feb 24, 2014 4:39 AM
69	Land Cover, NDVI, Snow Cover	Feb 23, 2014 11:34 PM
70	Landcover	Feb 23, 2014 8:13 PM
71	Burned Area	Feb 21, 2014 5:16 PM
72	Reflectance to derive value added information products related to geoscience	Feb 21, 2014 6:31 AM
73	Various indices and data analyses as required	Feb 21, 2014 4:20 AM
74	Surface water	Feb 21, 2014 3:54 AM
75	Reflectance	Feb 20, 2014 11:03 PM
76	Land surface phenology	Feb 20, 2014 4:41 PM
77	surface reflectance	Feb 20, 2014 4:40 PM

Page 2, Q1. Please list the products you use.		
1	sat	May 15, 2014 11:37 AM
2	Land Cover, Burned Area Albedo CO2	May 3, 2014 11:26 AM
3	SST, LAI, etc	Apr 23, 2014 7:01 PM
4	land surface reflectances NDVI EVI MODIS/AVHRR	Apr 18, 2014 10:09 AM
5	NDVI, LAI	Apr 18, 2014 7:54 AM
6	Global, regional and local bulk and skin SST.	Apr 17, 2014 7:21 PM
7	MODIS, Topex/Poseidon, Jason-1,2, UMD land cover classification, GRACE liquid water equivalent, Sentinnel, Envisat, ERS-2, JERS-1	Apr 17, 2014 5:16 PM
8	Land surface temperature, solar radiation	Apr 17, 2014 2:38 PM
9	soil moisture, LAI, albedo, NDVI, precipitation (TRMM), emissivity, what product do you mean? satellite? please specify a type of product or which source of information you mean. we have various ways to determine the same variable	Apr 17, 2014 2:26 PM
10	From My_Ocean: Global Ocean OSTIA Sea Surface Temperature and Sea Ice Analysis Global Ocean Sea Surface Temperature L3 Observations	Apr 17, 2014 12:11 PM
11	Satellite altimetry (level 1 to 3)	Apr 17, 2014 11:48 AM
12	ATSR SST	Apr 15, 2014 7:29 AM
13	GlobWAVE	Mar 24, 2014 12:38 PM
14	MODIS EVI MODIS NDVI MODIS Chlorophyll products (all quality products for the above) MERIS chlorophyll products MERIS optical products SST products (variety of systems) Altimetry (novice use, but increasing) Scatterometry products (various systems) Wave products (Various systems)	Mar 19, 2014 12:31 PM
15	swh, wind speed	Mar 18, 2014 2:19 PM
16	satellite altimeter	Mar 17, 2014 9:36 PM
17	Altimeter and SAR wave mode products	Mar 17, 2014 6:38 PM
18	Scatterometer winds, SAR winds, radiometer winds, altimeter winds, altimeter wave heights, (SSTs)	Mar 17, 2014 12:05 PM
19	Enivsat MERIS, Landsat TM. Intend to use Sentinel 2 & 3 data	Mar 17, 2014 11:06 AM
20	GDR from Jason-2, SARAL/AltiKa, ERS & Envisat	Mar 17, 2014 10:23 AM
21	Basically all atmospheric composition, i.e., minor and major trace gases, aerosols, clouds	Mar 17, 2014 10:04 AM
22	Satellite and aircraft based imagery	Mar 14, 2014 7:28 PM
23	calibrated reflectance, ndvi, vegetation	Mar 14, 2014 5:29 PM
24	Primarily GeoEye satellites data, to a lesser extent SPOT or IRS	Mar 14, 2014 4:28 PM

Page 2, Q1. Please list the products you use.		
25	Brightness Temperature Soil Moisture NDVI	Mar 14, 2014 9:46 AM
26	adfasdf	Mar 13, 2014 12:37 PM
27	SST from GHRSST	Mar 12, 2014 9:15 AM
28	Surface Air temperature, Sea-surface temperature, Carbon dioxide, Methane, and other long-lived greenhouse gases, Sea level, Land cover (including vegetation type), Fire disturbance	Mar 7, 2014 12:44 PM
29	Land Cover	Mar 6, 2014 3:56 PM
30	Landsat Surface Refectance CDR	Mar 4, 2014 3:14 PM
31	CryoClim Snow Cover OSISAF Sea Ice	Mar 4, 2014 12:09 PM
32	MODIS Surface Reflectance, BRDF, LST	Feb 28, 2014 10:34 AM
33	QuantumGIS ArcGIS ERDAS Imagine PCI Definiens eCognition	Feb 28, 2014 9:20 AM
34	NAIP	Feb 27, 2014 11:08 PM
35	ArcGIS QGIS PCI Geomatics	Feb 27, 2014 7:12 PM
36	rain rate	Feb 27, 2014 3:29 PM
37	LSA SAF SEVIRI LST MODIS LST products AATSR	Feb 27, 2014 12:42 PM
38	We are a provider of technology (ERDAS Imagine)	Feb 27, 2014 12:04 PM
39	A range of RADAR DEMs, standard RGB satellite imagery	Feb 27, 2014 11:39 AM
40	asv	Feb 27, 2014 11:27 AM
41	SAR observations	Feb 27, 2014 10:49 AM
42	MODIS LST daily and 8 days products, MODIS, Emissivity, MODIS NDVI 16 days, METEOSAT LST, down-welling surface longwave radiation flux (DSLF) and the down-welling surface shortwave radiation flux (DSSF), GlobCover	Feb 27, 2014 10:23 AM
43	AMSRE Vegetation Optical Depth MODIS LAI, EVI, NDVI MODIS Phenology Products	Feb 26, 2014 7:40 PM
44	burned area, land cover	Feb 26, 2014 4:57 PM
45	Landsat data SPOT	Feb 26, 2014 2:15 PM
46	Local CO2 measurements, temperatures	Feb 26, 2014 12:54 PM
47	reflectance	Feb 26, 2014 11:38 AM
48	VHR, HR, MR optical sensors LiDAR space & air borne sensors	Feb 26, 2014 9:41 AM
49	SMOS, GCOM-W1, Envisat-ASAR, ASCAT, WindSat, MODIS	Feb 26, 2014 1:51 AM
50	Unclear question - products in sense of processing products like "NDVI index map" or imagery products? Landsat TM, ETM+, OLI SPOT ASTER	Feb 25, 2014 12:54 PM

Page 2, Q1. Please list the products you use.		
	RapidEye Hi-res imagery only in viewer if recent	
51	Landsat 7, 8, SPOT 5, 6, Pleiades, ALOS PALSAR, ENVISAT	Feb 25, 2014 11:44 AM
52	Landsat SPOT TerraSAR ALOS	Feb 25, 2014 9:56 AM
53	LST&E from various platforms vegetation indices and land cover maps	Feb 25, 2014 9:28 AM
54	NDVI fAPAR Brightness Temperature Precipitation Dry Matter Productivity Phenology data Anomalies of previous	Feb 25, 2014 8:51 AM
55	MOD16, GLEAM, CCI-soil moisture	Feb 24, 2014 11:12 PM
56	AVHRR, MODIS, SEVIRI, ATSR radiances	Feb 24, 2014 10:02 PM
57	MOD21KM,MOD03,MCD64, MCD45	Feb 24, 2014 9:07 PM
58	Landsat surface reflectance	Feb 24, 2014 8:27 PM
59	Reflectance, LAI, chlorophyll, land cover type, Albedo	Feb 24, 2014 6:46 PM
60	MOD17 SPOT DM MOD09	Feb 24, 2014 6:38 PM
61	MODIS, Landsat, SPOT raw images and derived products e.g. MODIS EVI/NDVI	Feb 24, 2014 6:33 PM
62	Remote sensing reflectance absorption and backscattering coefficients concentration of Chlorophyll and suspended particulate matter in water and dissolved organic matter absorption in water derived from remote sensing.	Feb 24, 2014 6:02 PM
63	at-surface reflectance land cover	Feb 24, 2014 5:32 PM
64	AMSR E ASCAT	Feb 24, 2014 5:20 PM
65	SEVIRI Land Surface Tempertaure (LST) from LSA-SAF MODIS LSTs product from NASA ATSR LST product from ESA	Feb 24, 2014 4:42 PM
66	NLCD	Feb 24, 2014 4:40 PM
67	land cover	Feb 24, 2014 4:03 PM
68	dfs	Feb 24, 2014 3:29 PM
69	frac	Feb 24, 2014 3:18 PM
70	Land cover	Feb 24, 2014 9:54 AM
71	Marine products: Chlorophyll, suspended sediment, organic matter, secchi depth	Feb 24, 2014 9:48 AM
72	optical / radar high & medium resolution	Feb 24, 2014 4:40 AM
73	Burned Area Land cover LAI	Feb 21, 2014 5:16 PM
74	Radiance Reflectance Mineral and environmental information products	Feb 21, 2014 6:31 AM
75	Landsat (various) Level 1 and Data Cube, Geoscience Australia Dynamic Land Cover, SPOT/RapidEye/other high resolution satellite data as	Feb 21, 2014 4:23 AM

Page 2, Q1. Please list the products you use.		
	required/available	
76	Landsat surface reflectance to generate water observations	Feb 21, 2014 3:55 AM
77	N/A	Feb 21, 2014 3:52 AM
78	MODIS NBAR at 500 m MODIS BRDF Hyperion Chris ProbA in 62 band mode Landsat 5/7/8	Feb 20, 2014 11:05 PM
79	MODIS for NACP phenology product http://accweb.nascom.nasa.gov/	Feb 20, 2014 4:42 PM
80	surface reflectance	Feb 20, 2014 4:41 PM

Page 3, Q1. Please indicate the products that you use.		
1	CLARA-SAL_A1	Feb 25, 2014 1:48 PM
2	Landsat surface reflectance ECV	Feb 24, 2014 7:12 PM

Page 4, Q1. Please indicate the products that you use.		
1	GIMMS FPAR3g	Apr 29, 2014 9:18 PM
2	FAPAR from FASIR NDVI, ISLSCP-II	Apr 17, 2014 1:15 PM
3	Geoland HR from Landsat type satellites (in future S2)	Feb 25, 2014 4:56 PM
4	GlobALBEDO	Feb 24, 2014 10:33 PM
5	FAPAR from IMAGINES...soon!	Feb 24, 2014 4:25 PM

Page 5, Q1. Please indicate the products that you use.		
1	Reflectances from SPOT, Landsat, Formosat	Apr 25, 2014 5:05 PM
2	Locally generated vegetation structure products MODIS and Landsat - australia	Apr 17, 2014 1:07 PM
3	LAI from medium resolution (Landsat, DMC)	Feb 28, 2014 12:00 PM
4	Own LAI product from SEVIRI or AATSR+MERIS	Feb 24, 2014 4:00 PM
5	CCRS Canada Wide LAI	Feb 24, 2014 3:59 PM
6	Auscover TERN LAI	Feb 21, 2014 4:12 AM

Page 6, Q1. What is your main application of this product?		
1	Climate change applications	Apr 17, 2014 7:22 PM
2	sea level variability and ocean currents	Apr 17, 2014 11:50 AM
3	Validation of numerical models of wind and wave	Mar 24, 2014 12:40 PM
4	Weather and marine forcasting	Mar 17, 2014 6:42 PM
5	1) waves; are usually not taken as part of weather, and 2) ocean modelling	Mar 17, 2014 12:14 PM
6	calibration/validation	Mar 17, 2014 10:25 AM
7	Ocean current modelling	Mar 12, 2014 9:16 AM
8	Impact and adaptation studies	Mar 7, 2014 12:48 PM
9	Quantification of cloud cover	Feb 28, 2014 10:35 AM
10	Territorial development	Feb 28, 2014 9:22 AM
11	Flash floods	Feb 27, 2014 3:31 PM
12	natural resources / defence / landscape protection / flood / change detection	Feb 27, 2014 12:07 PM
13	maritime activities	Feb 27, 2014 10:50 AM
14	Solar Energy Estimation	Feb 27, 2014 10:26 AM
15	soil, geology	Feb 26, 2014 11:41 AM
16	validation	Feb 25, 2014 9:31 AM
17	Drought monitoring	Feb 25, 2014 8:53 AM
18	groundwater	Feb 24, 2014 11:13 PM
19	atmospheric properties	Feb 24, 2014 10:04 PM
20	vegetation function and sustainability/health	Feb 24, 2014 6:48 PM
21	I assume this question is about water remote sensing reflectance, hence my answers below	Feb 24, 2014 6:07 PM
22	Ancillary information in land surface temperature remote sensing	Feb 24, 2014 5:45 PM
23	Geological mapping, mine environment monitoring	Feb 21, 2014 6:35 AM
24	Grassland and savanna dynamics and composition	Feb 20, 2014 11:07 PM
25	Habitat suitability modeling	Feb 20, 2014 4:45 PM
26	biodiversity modelling	Feb 20, 2014 4:43 PM

Page 6, Q2. Time-step of application: How frequently do you need new data?		
1	10 days is the target, Monthly acceptable	Apr 25, 2014 5:08 PM
2	ideally, less than 1 hour for run-off or flooding application	Apr 17, 2014 2:31 PM
3	every few hours.	Mar 17, 2014 6:42 PM
4	For ECVs hourly is more appropriate in order to detect diurnal cycles; Timeliness is RT or NRT (near real time)	Mar 17, 2014 12:14 PM
5	depend on the repeat cycle	Mar 17, 2014 10:25 AM
6	Depends on frequency of clients	Mar 7, 2014 3:53 PM
7	Eventually, we need stadistically agregated data for studies	Mar 7, 2014 12:48 PM
8	Daily acquisition attempts are required for weekly imaging in most cloudy regions of the world	Feb 28, 2014 12:02 PM
9	Sub-daily: description of diurnal cycle	Feb 27, 2014 12:44 PM
10	we have circa 200+ clients in the uk. It is therefore challenging to state the above however, most would be monthly / annual	Feb 27, 2014 12:07 PM
11	this varies depending on client and project needs	Feb 27, 2014 11:40 AM
12	best exposure of soil and geology	Feb 26, 2014 11:41 AM
13	Compromise between temporal and spatiale resolution. VHR at low temporal frequency vs. MR at high temporal frequency	Feb 26, 2014 9:44 AM
14	time-step not important, but sampling window must be short enough for comparisons with in-situ data	Feb 25, 2014 9:31 AM
15	growing season averages	Feb 25, 2014 8:53 AM
16	We will use what we can get, as we are using Landsat, it has a 16 day repeat cycle, although we would welcome more frequent data.	Feb 24, 2014 8:30 PM
17	peak season LAI	Feb 24, 2014 4:00 PM
18	Quarterly	Feb 21, 2014 6:35 AM
19	We use an annual summary (phenology) but it is best if the phenology product is derived from a daily product.	Feb 20, 2014 4:45 PM
20	Growing season averages, bioclimatic vars (e.g., worldclim.org)	Feb 20, 2014 4:43 PM

Page 6, Q3. Temporal range of data required for analysis:		
1	preferably 30 years	Apr 29, 2014 9:20 PM
2	what do you mean by individual dates? what is a temporal resolution of 'individual dates'?	Apr 17, 2014 2:31 PM
3	time series analysis is becoming a focus of my work, this requires access to the entire datasets to determine inter-annual shifts, and intra-annual cycles.	Mar 19, 2014 12:34 PM
4	35days	Mar 17, 2014 9:39 PM
5	Continuous NRT	Mar 17, 2014 6:42 PM
6	Depends on client	Mar 7, 2014 3:53 PM
7	this varies depending on client and project needs	Feb 27, 2014 11:40 AM
8	does not apply	Feb 25, 2014 9:31 AM

Page 6, Q4. Spatial resolution of data required for analysis:		
1	aggregate to 0.5° resolution for use in DGVM	Apr 29, 2014 9:20 PM
2	Down-scaled if possible	Apr 22, 2014 1:02 PM
3	coarse resolution (5-50km)	Apr 18, 2014 10:12 AM
4	0.5 DEGREE	Apr 18, 2014 7:55 AM
5	0.5 by 0.5 degree	Apr 17, 2014 1:24 PM
6	as high as possible	Apr 17, 2014 12:13 PM
7	In practise aggregation is needed for noise reduction!	Mar 17, 2014 12:14 PM
8	Supersampled to 250m on WRS-84 or national grid	Mar 8, 2014 10:45 AM
9	depends on client	Mar 7, 2014 3:53 PM
10	Medium resolution required for many applications (20-50m)	Feb 28, 2014 12:02 PM
11	Depends on the application, from middle (30 meter) to low (3 km)	Feb 27, 2014 10:26 AM
12	If available pan-sharpen LS8 OLI to 15m	Feb 25, 2014 12:56 PM
13	in the range 20-100m	Feb 24, 2014 6:34 PM
14	Mean and variance at ~5 or 10 km resolution also adequate	Feb 24, 2014 5:45 PM
15	Unmix subpixel signals	Feb 20, 2014 11:07 PM
16	often aggregated to match the climate data	Feb 20, 2014 4:45 PM

Page 6, Q5. Spatial extent of data required for analysis:		
1	Was this a marine survey? Land cover?	Mar 17, 2014 12:14 PM
2	various	Mar 14, 2014 5:32 PM
3	Currently we are working on national level analysis, then we will work on Continental, then Global	Feb 24, 2014 8:30 PM
4	national e.g. Ireland	Feb 24, 2014 6:34 PM

Page 6, Q6. Do you use specific spectral bands?
If yes, please indicate which wavelength ranges do you use?

1	no	May 15, 2014 12:04 PM
2	0.6-2.5nm	May 3, 2014 11:28 AM
3	blue (or green if no blue channel available), red, near-infrared, SWIR and thermal infrared when available at high resolution (<100m)	Apr 25, 2014 5:08 PM
4	red near infra	Apr 18, 2014 10:12 AM
5	no	Apr 17, 2014 5:17 PM
6	0.555,0.68,0,0.85,1.6,3.7,10.8 and 12 microns	Apr 15, 2014 7:30 AM
7	I go by products, not bands. Need to create rgb imagery for science communication & visualisation Need thermal bands to help with cloud cleaning Need the bands for products such as NDVI, EVI, and maybe in future LAI and fAPAR.	Mar 19, 2014 12:34 PM
8	0.85cm	Mar 17, 2014 9:39 PM
9	N/A	Mar 17, 2014 6:42 PM
10	Microwaves	Mar 17, 2014 12:14 PM
11	Just the Visible and NIR	Mar 17, 2014 11:07 AM
12	Whole range from UV to IR with high spectral resolution	Mar 17, 2014 10:06 AM
13	visible and near infrared	Mar 14, 2014 7:30 PM
14	RGB NIR	Mar 14, 2014 4:30 PM
15	1.4 GHz	Mar 14, 2014 9:47 AM
16	VNIR, SWIR, TIR	Mar 4, 2014 3:16 PM
17	nIR	Feb 28, 2014 7:02 PM
18	Visual, NIR, SWIR, Thermal	Feb 28, 2014 4:58 PM
19	Visible, NIR ans SWIR	Feb 28, 2014 12:02 PM
20	Red, NIR, SWIR are particularly important - we also use atmospheric bands	Feb 28, 2014 10:35 AM
21	near infrared red edge red green short wave infrared	Feb 28, 2014 9:22 AM
22	Visible, Near IR	Feb 27, 2014 7:14 PM
23	300-2500nm	Feb 27, 2014 4:18 PM
24	our clients extensively use spectral bands mainly those provided by the major satellite providers (astrium, LS, WV) visible / IR / some thermal	Feb 27, 2014 12:07 PM
25	We tend to use the standard RGB	Feb 27, 2014 11:40 AM
26	gs	Feb 27, 2014 11:31 AM

Page 6, Q6. Do you use specific spectral bands?
If yes, please indicate which wavelength ranges do you use?

27	From optical to thermal	Feb 27, 2014 10:26 AM
28	Colour, NIR, SWIR	Feb 27, 2014 6:07 AM
29	0.4-2.5 um, 8-13 um	Feb 26, 2014 11:41 AM
30	Mostly Red, NIR & Panchro	Feb 26, 2014 9:44 AM
31	L-band, C-band, Ku-band VIS, NIR, SWIR	Feb 26, 2014 1:53 AM
32	visible and infrared	Feb 25, 2014 9:41 PM
33	SWIR, NIR	Feb 25, 2014 9:58 AM
34	VIS/NIR and TIR	Feb 25, 2014 9:31 AM
35	NO	Feb 25, 2014 8:53 AM
36	microwave, NIR, TIR.	Feb 24, 2014 11:13 PM
37	Broad band	Feb 24, 2014 10:36 PM
38	all available wavelengths	Feb 24, 2014 10:04 PM
39	3.9 um (middle-infrared)	Feb 24, 2014 9:07 PM
40	If possible continuous 400-2400 nm	Feb 24, 2014 6:48 PM
41	Visible, NIR, microwave	Feb 24, 2014 6:34 PM
42	• Blue, Green, Red, Near infrared, Mid-infrared,	Feb 24, 2014 6:25 PM
43	Visible and near infra red	Feb 24, 2014 6:07 PM
44	.55, .67, .85, 1.6 um	Feb 24, 2014 5:45 PM
45	yes - we are working towards hyperspectral. non-continuous bands cause scene specific inaccuracies.	Feb 24, 2014 5:33 PM
46	0.4-2.5	Feb 24, 2014 4:55 PM
47	Nir	Feb 24, 2014 4:10 PM
48	visible to NIR with at least 5nm resolution	Feb 24, 2014 4:04 PM
49	VIS/NIR Priority to multiangular observations	Feb 24, 2014 4:02 PM
50	regions around 660nm, 1.6um and a broad band NIR in NIR plateau for vegetation outside water absorption bands	Feb 24, 2014 4:00 PM
51	all availble in various combinations	Feb 24, 2014 4:42 AM
52	0.4 - 3.0	Feb 21, 2014 5:22 PM
53	VNIR-SWIR as well as TIR and MIR where available	Feb 21, 2014 6:35 AM
54	As required	Feb 21, 2014 4:24 AM

Page 6, Q6. Do you use specific spectral bands?
If yes, please indicate which wavelength ranges do you use?

55	VIS, NIR, SWIR, TIR	Feb 21, 2014 3:56 AM
56	Red and NIR, but moving into thermal	Feb 20, 2014 4:45 PM
57	optical, NIR, SWIR	Feb 20, 2014 4:43 PM

Page 9, Q1. As you answered yes to the previous question, please explain how you would use this information.		
1	I would use this information for a proper selection of sptail/temporal data points for my analysis or to exclude low quality observations before I assimilate them into a land surface model	Apr 29, 2014 9:22 PM
2	In a way to understand insightful the uncertainty.	Apr 22, 2014 1:04 PM
3	to select / flag good/poor quality retrievals	Apr 21, 2014 11:07 AM
4	TO ACQUIRE KNOWLEDGE BEFORE USING IT	Apr 18, 2014 7:56 AM
5	To derive uncertainties for data assimilation studies and for masking pixels	Apr 17, 2014 11:03 PM
6	To understand the propagation of uncertainty through the processing chain. As an aid to estimating the uncertainty of different spatial/temporal aggregations...	Apr 17, 2014 7:24 PM
7	I would use it in assessing data quality and where/when the quality might be most questionable.	Apr 17, 2014 5:19 PM
8	We use the documentation to provide the uncertainties associeted to the product available. For decision making the uncertainties can be more important , and it can used to develop decision scenarios	Apr 17, 2014 2:42 PM
9	currently, satellite journals (more specifically, reviewers) are reluctant to admit that there are significant errors with satellite observation. Or even data assimiliation scientists with 10 years of work experience are not aware of or can't accurately inform students or goverment agency-based scientists of satellite errors. This led to distrust of any global estimation or satellite data by policy makers or decision makers. Data assimilation is a main area in several operational services (NASA, NCEP, ECMWF etc). THey will use this information significantly well.	Apr 17, 2014 2:40 PM
10	To understand how the products are created and to use that information as background for publications	Apr 17, 2014 1:25 PM
11	Tu judge the quality of the data. Are there a lot of errors possible in the derivation process, how is the coverage in space and time, where are the limits of the data (e.g. close to the coasts, poles, etc.) How are the gaps between different satellite, which satellite had which problems, data coverage with more than one satellite, etc	Apr 17, 2014 12:15 PM
12	Web site	Apr 17, 2014 11:50 AM
13	In use of data to test models, possibly in data assimilation	Apr 14, 2014 5:51 PM
14	To know my dataset and back up my results when presenting. Transparent processing and accountability is key to providing information to decision makers, who need to know that their decision is not based on hearsay or pseudo science. It would also save me significant amounts of time in collating the required information.	Mar 19, 2014 12:36 PM
15	To assess the quality of the data and to find out if adjustment or correction is needed (and if alternative adjustments are needed).	Mar 17, 2014 6:45 PM
16	- Users are interested in geophysical parameters, which are not measured by the satellites; - For any point it needs to be clear whether the "interpretation" model used to obtain the geophysical parameters is	Mar 17, 2014 12:20 PM

Page 9, Q1. As you answered yes to the previous question, please explain how you would use this information.		
	applicable and, if yes, how well; non-applicable data for a user application must be discarded at the user level, not at production level. - Corrections for non-uniform sampling need to be known, or at least limitations posted; this includes the expected error after rejection of non-applicable data;	
17	to cross-check with my analyses	Mar 17, 2014 10:27 AM
18	For traceability of the product content quality but for interpretation of data and assimilation	Mar 17, 2014 10:07 AM
19	I am concerned mainly in whether or not the raster values in an image have a linear relationship to upwelling band-averaged spectral radiance values at the observer	Mar 14, 2014 7:31 PM
20	we often do things to data and it would be very helpful to know if we are doing these things in the right order or if we should be doing them	Mar 14, 2014 5:34 PM
21	Data processing notes regarding the raw imagery would be summarized and included in deliverable final reports along with the deliverable products.	Mar 14, 2014 4:31 PM
22	It can be used to indicate the quality / fitness for purpose of the products and allow judgements to be made when comparing products.	Mar 12, 2014 9:17 AM
23	For various cliengts mainl in Agriculture, pasture and Forest studies	Mar 7, 2014 3:55 PM
24	To estimate accuracy of data provided	Mar 7, 2014 1:17 PM
25	suporting and enhacing adaptation and impacts studies	Mar 7, 2014 12:51 PM
26	Some time you find some questions, then you need go back to check the data with these information	Mar 6, 2014 3:59 PM
27	Provenance facilitates determination of uncertainties that may be inherent upstream, rather than introduced by the final application.	Mar 4, 2014 3:18 PM
28	For my own quality evaluation of the products I am generating.	Mar 4, 2014 12:13 PM
29	embed into quality assurance program	Feb 28, 2014 7:03 PM
30	to better understand what is happening with the data before I use it and perhaps to design better adhoc use of the data	Feb 28, 2014 12:09 PM
31	Understand the modelling of the land cover and land use classes from the semantic approach applied Be aware of the bio-physical parameters used in the classification approach and the specific rules set-up in the processing chain.	Feb 28, 2014 9:24 AM
32	To determine if results are being influenced by any outside factors	Feb 27, 2014 11:09 PM
33	Methodology, QA metadata	Feb 27, 2014 7:15 PM
34	validate against other models and sources of data	Feb 27, 2014 4:19 PM
35	track	Feb 27, 2014 3:34 PM
36	Mostly for validation of the processes, and so that we understand the inherent uncertainties	Feb 27, 2014 12:00 PM

Page 9, Q1. As you answered yes to the previous question, please explain how you would use this information.		
37	Sometimes products have to be recalibrated on specific region, therefore knowing the the product chain would be helpful in the recalibration	Feb 27, 2014 10:28 AM
38	To better understand the product being applied, its level on uncertainty, and a detailed knowledge of the methods use to derive the product	Feb 26, 2014 7:43 PM
39	I would use it to generate more analysis and even manipulate the data to suit my own kind of analysis.	Feb 26, 2014 2:18 PM
40	Don't know, since I'm not familiar with it	Feb 26, 2014 12:56 PM
41	To assess data quality and effectiveness in combining with different data sets	Feb 26, 2014 11:43 AM
42	We develop and publich methodologies to quantify forest properties. It is essential for us to know exactly all the processing steps the EO data goes through.	Feb 26, 2014 9:46 AM
43	Verification of quality assessment prodcedures.	Feb 26, 2014 1:53 AM
44	to control operations of data processing when trying to improve them	Feb 25, 2014 9:43 PM
45	Quantify vergetation parametres; Build up trust on user side	Feb 25, 2014 4:58 PM
46	Quantify margin of errors of land use change mapping and attributed carbon fluxes. Accept / Reject mapping in terms of accuracy thresholds on User / Producer's Accuracy.	Feb 25, 2014 12:58 PM
47	Radiometric processing of the scnes we use is important	Feb 25, 2014 9:59 AM
48	Creating end user awarness on interpreting maps Define scale of application Locally re-callibrate products	Feb 25, 2014 8:54 AM
49	input for modelling	Feb 25, 2014 8:34 AM
50	as the data that I use are already made using model assumptions, I need these model assumptions. For example, what were the assumption going from PET to AET? Or what was the soil model used for going to soil moisture values?	Feb 24, 2014 11:17 PM
51	To fully understand the characteristics of the dataset	Feb 24, 2014 10:37 PM
52	in order to better understand the final product	Feb 24, 2014 9:07 PM
53	to understand how the data were derived for more meaningful comparisons of different methods	Feb 24, 2014 6:35 PM
54	the information will ease pixel to pixel analysis and classification	Feb 24, 2014 6:27 PM
55	My application is to validate earth observation products from marine environment, coasts and lakes. A detailed information on the source of uncertainty (and uncertainty estimates) would allow for better interpretation of results when comparing in-situ observation and EO products	Feb 24, 2014 6:12 PM
56	Data quality is important, as it contributes to the information product accuracy and uncertainty.	Feb 24, 2014 5:35 PM

Page 9, Q1. As you answered yes to the previous question, please explain how you would use this information.

57	Quality assessments	Feb 24, 2014 5:06 PM
58	I could send in my reports infromation related to accuracy. That will make more understandable the products and also, in some cases, the extention of our applications.	Feb 24, 2014 4:57 PM
59	to understand	Feb 24, 2014 4:41 PM
60	To determine the quality of the data and how reliable it is for the application	Feb 24, 2014 4:39 PM
61	Quality control	Feb 24, 2014 4:11 PM
62	assess reliability of the maps, discuss further results in connection with input data	Feb 24, 2014 4:06 PM
63	To decide whether the approach is scientific valid To know the actual definition of LAI (effective LAI? green LAI?) To have a preliminary assessment of the potential quality of the prodcut To know its main limitations	Feb 24, 2014 4:04 PM
64	1. Stratification of validation efforts. 2. Selective use of algorithms in areas where I know the processing assumptions hold/ 3. Updating application of algoirithms (e.g. switching LUTs is I know land cover has changed).	Feb 24, 2014 4:02 PM
65	To assess the usefulness of the products for input to my processing for deriving the value-added products that I want to produce, and for the analysis if the accuracy of the latter.	Feb 24, 2014 10:09 AM
66	To do checking and verification agains other published/observed data	Feb 24, 2014 4:45 AM
67	QC and if anaomalies show in time series	Feb 24, 2014 4:43 AM
68	LUT of errors; integrate the information into the processing stream	Feb 23, 2014 11:36 PM
69	uncertainty/error analysis	Feb 21, 2014 7:45 PM
70	traceability	Feb 21, 2014 7:01 AM
71	Assess data products for fitness for purpose (specific classification and processing and any documented data errors), report on source accuracy and confidence	Feb 21, 2014 4:28 AM
72	Built trust in the dataset within our user community	Feb 21, 2014 4:14 AM
73	To provide provenance information and uncertianty characterisation to the end user	Feb 21, 2014 3:57 AM
74	quality assessment of derived products	Feb 20, 2014 10:38 PM
75	hmbn	Feb 17, 2014 9:59 AM

Page 11, Q1. As you answered yes to the previous question, please explain where you obtain this information.		
1	In most cases, we built our own processing chain or we are closely connected to the peoples who produce the data We are also looking for the information givent by the ATBD	Apr 25, 2014 5:10 PM
2	from the published works	Apr 23, 2014 7:03 PM
3	From related already published papers.	Apr 18, 2014 10:53 AM
4	Quality flags in MODIS products	Apr 18, 2014 10:12 AM
5	available with data (ornl daac)	Apr 17, 2014 1:16 PM
6	Because we wrote the code!	Apr 15, 2014 7:31 AM
7	Refereed publications, ATBDs whenever available	Apr 14, 2014 4:59 PM
8	A colleague retrieved full documentation for the GolWAVE project, I lebieve, from their website.	Mar 24, 2014 12:41 PM
9	From ESA websites, attendance of Meetings, Symposia etc.	Mar 17, 2014 11:07 AM
10	Webpage	Mar 14, 2014 9:48 AM
11	Information is contained on Modis websites and in ATBDs.	Feb 28, 2014 7:24 PM
12	ATBDs, journal publications, conferences	Feb 28, 2014 6:29 PM
13	The product website and publications	Feb 28, 2014 4:59 PM
14	Data provider web site and published literature	Feb 28, 2014 12:03 PM
15	algorithm theoretical basis, QA layers	Feb 28, 2014 10:36 AM
16	Product error budget; quality flags; validation reports; other scientific publications of producers or users.	Feb 27, 2014 12:46 PM
17	The software provides 1) a record of the processing chain used with each step noted 2) the background maths used at each step to confirm the approach to the analysis	Feb 27, 2014 12:08 PM
18	gwsgh	Feb 27, 2014 11:32 AM
19	satellite operators ourselves as satellite data analysts	Feb 27, 2014 10:51 AM
20	Either from an XML header or product user guide	Feb 26, 2014 4:58 PM
21	www-pages	Feb 25, 2014 1:50 PM
22	NASA & ESA	Feb 24, 2014 10:04 PM
23	It is accessible up to a point. The images are processed through EROS LEDAPS and ESPA systems before we receive them. Descriptions of these processes are available via USGS documents.	Feb 24, 2014 8:33 PM
24	From the header files of the data From the data producers From the providers of the sensors	Feb 24, 2014 6:49 PM

Page 11, Q1. As you answered yes to the previous question, please explain where you obtain this information.		
25	US web sites	Feb 24, 2014 5:45 PM
26	Product user manuals, auxiliary data sets made available with main data sets, and new items on data providers websites.	Feb 24, 2014 4:44 PM
27	Quality information must both include the uncertainty about the product and more generally a qualitative assessment. This is necessary to decide for assimilation (or not) of the product.	Feb 24, 2014 4:07 PM
28	Internet and product Handbooks	Feb 24, 2014 9:50 AM
29	would expect to find this information in accompanying documents/metadata	Feb 21, 2014 5:24 PM
30	Detailed published and grey literature on MODIS, Landsat, Hyperion, CHRIS etc	Feb 20, 2014 11:09 PM
31	product metadata and personal experience with the product	Feb 20, 2014 4:45 PM
32	From website where product is downloaded (e.g., LPDAAC)	Feb 20, 2014 4:43 PM

Page 14, Q1. As you answered yes to the previous question, please tell us how you make use of the quality indicators? (e.g thresholding, masking etc)		
1	masking	Apr 23, 2014 7:03 PM
2	thresholding and masking	Apr 22, 2014 1:04 PM
3	as before	Apr 21, 2014 11:08 AM
4	masking (cloud, snow contaminated) and thresholding (solar/viewing zenithal angles)	Apr 18, 2014 10:14 AM
5	Masking	Apr 17, 2014 11:03 PM
6	Understanding comparisons with other SST products. Aggregating with LST to produce global products.	Apr 17, 2014 7:25 PM
7	Thresholding	Apr 17, 2014 2:43 PM
8	quality indicators are averages for entire product; test results with other data to confirm quality	Apr 17, 2014 1:17 PM
9	Masking, cloudiness, sunglint, channel presence, single or dual view retrieval, saturation, calibration data - quite a lot more inc land, sea, coast, gap filling, flagging for active radar operating during pixel acqusition, orbit quality	Apr 15, 2014 7:34 AM
10	data assimilation, model testing	Apr 14, 2014 5:52 PM
11	To eliminate outliers	Apr 14, 2014 5:00 PM
12	masking	Apr 9, 2014 10:10 AM
13	Masking	Mar 24, 2014 12:41 PM
14	Usually for flagging. However, sometimes the quality indicators are not sufficient and I need to introduce my own indicators.	Mar 17, 2014 6:48 PM
15	- Quality indicators indicate geophysical anomalies, such as land, rain or sea ice contamination, but also extreme wind variability; they are used to downweight or reject (threshold) data	Mar 17, 2014 12:23 PM
16	MERIS products contain flags that identify the suitability of a particular pixel or ROI for use.	Mar 17, 2014 11:09 AM
17	outliers detection	Mar 17, 2014 10:27 AM
18	For product monitoring	Mar 17, 2014 10:08 AM
19	If the response is non-linear ... for example if the imagery has been gamma "corrected" I need to know what model was used for such corrections so that I can reverse this.	Mar 14, 2014 7:33 PM
20	If it is not of sufficient quality, it is not usable. Typically this is with respect to cloud cover.	Mar 14, 2014 4:32 PM
21	simple thresholding to remove pixels whose quality is not deemed high enough.	Mar 12, 2014 9:18 AM
22	Masking for compositing process	Mar 8, 2014 10:48 AM

Page 14, Q1. As you answered yes to the previous question, please tell us how you make use of the quality indicators? (e.g thresholding, masking etc)		
23	need to have quality metadata to understand its reliability	Mar 7, 2014 12:54 PM
24	check the data	Mar 6, 2014 4:00 PM
25	Predominately to identify fill, saturation, clouds, cloud shadows: anything that would contaminate a spectral signature.	Mar 4, 2014 3:19 PM
26	For filtering of data. The quality indicators are of different nature, some are available at descriptive level while others at pixel level.	Mar 4, 2014 12:14 PM
27	Cloud masking	Feb 28, 2014 7:25 PM
28	thresholding	Feb 28, 2014 7:03 PM
29	thresholding, masking, inclusion/exclusion, weighting factor	Feb 28, 2014 6:30 PM
30	masking	Feb 28, 2014 5:00 PM
31	Cloud estimation. LAI quality flags	Feb 28, 2014 12:04 PM
32	masking	Feb 28, 2014 10:36 AM
33	It will provide information at what extend the data is reliable and it will outline the scope and context in which the information can be efficiently used.	Feb 28, 2014 9:26 AM
34	horizontal accuracy	Feb 27, 2014 11:10 PM
35	Thresholding, baseline validation	Feb 27, 2014 4:20 PM
36	data screening	Feb 27, 2014 3:36 PM
37	Masking values with "low" quality flag. When error budget is available, imposing threshold.	Feb 27, 2014 12:51 PM
38	thresholding / masking / errors of omission commission / ground truth statistical analysis / lots of statistical tests as well as the opportunity to create your own	Feb 27, 2014 12:10 PM
39	report to end users	Feb 27, 2014 10:52 AM
40	Estimation of its validity, uncertainty estimation	Feb 27, 2014 10:29 AM
41	All of the above. Threshold, masking, quantifying uncertainty.	Feb 26, 2014 7:44 PM
42	Masking, error estimates for data assimilation, uncertainty bounds	Feb 26, 2014 1:54 AM
43	Masking	Feb 25, 2014 4:59 PM
44	cloudy pixels are masked artifacts pixels are removed	Feb 25, 2014 1:52 PM
45	For product validation error estimates are essentia, especially for interpretation of the results.	Feb 25, 2014 9:35 AM
46	modelling	Feb 25, 2014 8:34 AM
47	To decide whether to pass the data to the assimilation process	Feb 24, 2014 10:38 PM

Page 14, Q1. As you answered yes to the previous question, please tell us how you make use of the quality indicators? (e.g thresholding, masking etc)		
48	use uncertainty in radiances as part of our optimal estimation retrieval	Feb 24, 2014 10:05 PM
49	quality indicators are used for masking the data.	Feb 24, 2014 9:07 PM
50	We use quality indicators to restrict use of only well georeferenced images. Also masking of clouds and other items.	Feb 24, 2014 8:37 PM
51	for water /land identification & classification	Feb 24, 2014 6:29 PM
52	Developing sensitive and dynamic range indicators of the information product.	Feb 24, 2014 5:36 PM
53	Thresholding, masking, error propegation (through to products I derive myself from these data).	Feb 24, 2014 4:45 PM
54	masking	Feb 24, 2014 4:41 PM
55	Masking	Feb 24, 2014 4:12 PM
56	Thresholding and weight given according to the quality in the optimal analysis or assimilation.	Feb 24, 2014 4:09 PM
57	consider or discard datasets	Feb 24, 2014 4:07 PM
58	Thresholding Model assessment	Feb 24, 2014 4:07 PM
59	1. Masking bad/missing data. 2. Weighing multiple products (if quality is in LAI units) 3. Weighing temporal gap filling.	Feb 24, 2014 4:03 PM
60	By using and applying Level 2 Quality Flags	Feb 24, 2014 9:51 AM
61	masking	Feb 23, 2014 11:36 PM
62	thresholding, masking, weighting inputs based on quality	Feb 21, 2014 8:05 PM
63	Add it as a map of accuracy or certainty when making products	Feb 21, 2014 7:03 AM
64	Thresholding	Feb 21, 2014 4:14 AM
65	To filter 'reliable' results from those more likely to contain errors	Feb 21, 2014 3:58 AM
66	Cloud masking, algorithm masking (ie. backup versus full)	Feb 20, 2014 11:09 PM
67	thresholding, masking out values deemed to be too low re: QA	Feb 20, 2014 4:47 PM
68	interpretation and use (that is, we screen by QA bits)	Feb 20, 2014 4:46 PM
69	h	Feb 17, 2014 9:57 AM

Page 15, Q1. As you answered no to the previous question, please tell us why don't you utilise the information provided in the quality indicators?

1	BECAUSE OF NO KNOWLEDGE	Apr 18, 2014 7:57 AM
2	the name itself is qualtity indicator but the indication is just a statistc comparison, not meaning the systematic errors. Please discuss with satellite data provider or scientist. they also agree with that. they provide error quality information by using 'flag' or RFI, but it is not fairly enough. So, i don't know how you estimate quality indication (probably, intercomparison...? or tricollocation...?) but it is also a good idea just to provide some retrieval algorithm as a prototype so that uses can play with it and carry out error analysis	Apr 17, 2014 2:45 PM
3	check results afterwards, not possible to give quality indication at global scale beyond a rough idea	Apr 17, 2014 1:14 PM
4	They are not real quality factors	Mar 14, 2014 9:48 AM
5	We don't actively utilise it to the full extent we could	Feb 27, 2014 12:01 PM
6	Prioritise completeness over quality	Feb 24, 2014 5:46 PM
7	Info does not have region specific information, only selected sites are provided	Feb 24, 2014 4:47 AM
8	Sometimes - depending on the relevance to my application and necessary accuracy for the decision required	Feb 21, 2014 4:29 AM
9	gh	Feb 17, 2014 9:57 AM

Page 17, Q1. As you answered no to the previous question, please explain why.		
1	Currently they are over very large aggregates (a week or a month of global observations) and they need to be on the resolution of a particular product...	Apr 17, 2014 7:27 PM
2	Not trustworthy	Apr 14, 2014 5:52 PM
3	The quality indicators are usually not enough to flag the data. I need to implement further statistical measures (or comparisons with other sources or models) to do that.	Mar 17, 2014 6:49 PM
4	need more details	Mar 17, 2014 10:28 AM
5	This varies from image source to image source	Mar 14, 2014 7:33 PM
6	They are more processing flags than actual quality indictors/flags.	Mar 4, 2014 12:15 PM
7	Some of them are not reliable	Feb 28, 2014 5:01 PM
8	Often they are incomplete. In most of the cases the quality indicators provide a general information of the quality, which might not be enough to assess the "fit for purpose" of the product.	Feb 28, 2014 9:29 AM
9	Baselines are to random and need adjustment to actual ground truth	Feb 27, 2014 4:20 PM
10	Sometimes more information on the single steps of process and not only in the final product would be useful	Feb 27, 2014 10:30 AM
11	Sometimes images which are ranked as well georeferenced are still not well georeferenced enough. Cloud masks are a struggle. Clouds seem to be a difficult thing to identify cleanly.	Feb 24, 2014 8:38 PM
12	more details are needful for fine resolute image classification	Feb 24, 2014 6:30 PM
13	Sufficient information on at-surface reflectance products are seldom sufficient to provide quantitative information.	Feb 24, 2014 5:37 PM
14	We need actually both. A quantitative error inherent to the product and a descriptor including for instance merged or not product, coastal area (in case of land-sea mask inaccuracy), etc	Feb 24, 2014 4:11 PM
15	The description of the algorithms are usually like a black box. Therefore the quality information are useless	Feb 24, 2014 4:09 PM
16	not all information is provided despite recommended practices	Feb 24, 2014 4:07 PM
17	1. Consistency is not present. Would be nice to have a 50%ile confidence interval and 95%confidence interval for every data value mapped. 2. Quality is often over conservative (producer wants to make sure they are correct but in doing so screen out data that is noisy but useful)/ 3. No standardization in QC flag formatting	Feb 24, 2014 4:04 PM
18	There's are errors in their production… the "quality" of the quality is sometimes suspect.	Feb 21, 2014 8:05 PM
19	For some data we received now, we do not even receive calibration data	Feb 21, 2014 7:03 AM
20	Need machine readable provenance so we can compare methods	Feb 21, 2014 4:14 AM

Page 18, Q1. What information would you like to see provided as a quality indicator?		
1	error or uncertainty of retrieval	Apr 29, 2014 9:23 PM
2	land surface condition distinct from assumption of retrieval algorithm, LEVEL 1 Data (.e.g calibration or orbit shifting issue...)	Apr 17, 2014 2:47 PM
3	to clarify, no to the previous question as the term "quality indication" has been loosely applied to all products I use, and it varies.	Mar 19, 2014 12:37 PM
4	All possible contaminations. Land/sea/ice mask.	Mar 17, 2014 6:51 PM
5	The way how the quality indicators is reported is very important. It should follow the ISO 19157 approach.	Feb 28, 2014 9:30 AM
6	Uncertainty estimation	Feb 27, 2014 10:31 AM
7	Climatological data used for atmospheric correction, sun/sensor angles, BRDF correction parameters, etc.	Feb 26, 2014 9:48 AM
8	Radiometric and geometric processing done	Feb 25, 2014 10:00 AM
9	quality information related to input variables	Feb 24, 2014 4:09 PM
10	50%ile or 95%ile retrieval confidence intervals	Feb 24, 2014 4:05 PM
11	Provenance	Feb 21, 2014 4:15 AM

Page 19, Q1. What additional information would you like to see provided as a quality indicator for your product?		
1	algorithmic uncertainty	Apr 21, 2014 11:08 AM
2	Everything is already there.	Apr 18, 2014 10:15 AM
3	Nothing	Apr 15, 2014 7:35 AM
4	Some of them are already in the products; winds, waves and surges are very local and time limited	Mar 17, 2014 12:26 PM
5	source of angle information used in toa reflectance calculation	Mar 4, 2014 3:20 PM
6	I cannot remember off hand which of these are/are not included - but they all sound good	Feb 28, 2014 10:37 AM
7	most are already available and we have not been asked recently for any that are missing	Feb 27, 2014 12:11 PM
8	what ever statistics is available is useful	Feb 25, 2014 1:52 PM
9	none	Feb 20, 2014 4:46 PM

Page 23, Q1. How is the uncertainty information provided? (e.g. per pixel, by scene etc)		
1	per pixel	Apr 22, 2014 1:06 PM
2	BY SCENE	Apr 18, 2014 7:58 AM
3	aggregated over global composites for a week or a month...	Apr 17, 2014 7:28 PM
4	by scene	Apr 17, 2014 2:45 PM
5	for entire product	Apr 17, 2014 1:19 PM
6	Pixel	Apr 15, 2014 7:36 AM
7	per pixel	Apr 14, 2014 5:53 PM
8	Per pixel	Apr 14, 2014 5:03 PM
9	per along track observation (but only for some variables, e.g. significant wave height - the main focus of the dataset - and not for secondary variables such as wind speed, which would also be useful.	Mar 24, 2014 12:50 PM
10	Unflagged (nominal) data are verified globally as a function of geophysical parameter; each flagged class is separately verified;	Mar 17, 2014 12:30 PM
11	Per pixel and/or per product	Mar 17, 2014 10:10 AM
12	CE	Mar 14, 2014 4:33 PM
13	per pixil	Feb 28, 2014 7:04 PM
14	pixel	Feb 28, 2014 6:32 PM
15	Per pixel	Feb 28, 2014 12:05 PM
16	Depends on the product	Feb 28, 2014 9:32 AM
17	metadata	Feb 27, 2014 11:11 PM
18	Per Pixel	Feb 27, 2014 4:22 PM
19	by pixel	Feb 27, 2014 3:38 PM
20	Per pixel.	Feb 27, 2014 12:58 PM
21	there is the ability to create statistics within the software as to uncertainty of outcome - this can be on an individual area or a regional/scene basis	Feb 27, 2014 12:13 PM
22	by scene	Feb 27, 2014 12:02 PM
23	vav	Feb 27, 2014 11:35 AM
24	algorithm detection uncertainty	Feb 26, 2014 7:46 PM
25	depends on the satellite product. in general per pixel	Feb 26, 2014 1:55 AM
26	per sampling unit (frequently 1 ha or 1 km2	Feb 25, 2014 5:01 PM
27	number of retrievals per pixel of end product (pentad or monthly mean)	Feb 25, 2014 1:54 PM

Page 23, Q1. How is the uncertainty information provided? (e.g. per pixel, by scene etc)		
28	Pixel and percent level per scene	Feb 25, 2014 1:00 PM
29	per pixel	Feb 25, 2014 9:37 AM
30	sdf	Feb 25, 2014 8:35 AM
31	pixel level uncertainty	Feb 24, 2014 10:07 PM
32	PER PIXEL	Feb 24, 2014 9:08 PM
33	Per pixel, per observation.	Feb 24, 2014 4:49 PM
34	Pixel	Feb 24, 2014 4:14 PM
35	pixel by pixel basis	Feb 24, 2014 4:13 PM
36	by product	Feb 21, 2014 5:28 PM
37	Per pixel	Feb 21, 2014 4:15 AM
38	layer (RMSE) and 2nd season flags	Feb 20, 2014 4:48 PM
39	zxc	Feb 17, 2014 9:57 AM

Page 23, Q2. How is the uncertainty value provided? (e.g. %, in product units, etc.)		
1	% in product units	Apr 22, 2014 1:06 PM
2	%	Apr 18, 2014 7:58 AM
3	in product units	Apr 17, 2014 7:28 PM
4	product unit	Apr 17, 2014 2:45 PM
5	in product units; guidance for selected periods	Apr 17, 2014 1:19 PM
6	SD in product units	Apr 15, 2014 7:36 AM
7	in product units	Apr 14, 2014 5:53 PM
8	Error bar in product units	Apr 14, 2014 5:03 PM
9	RMS value of model units	Mar 24, 2014 12:50 PM
10	in product units and as a residual in a.u.	Mar 17, 2014 12:30 PM
11	Depends on the paranmeter	Mar 17, 2014 10:10 AM
12	CE90	Mar 14, 2014 4:33 PM
13	in product units	Feb 28, 2014 7:04 PM
14	category	Feb 28, 2014 6:32 PM
15	LAI error units	Feb 28, 2014 12:05 PM
16	Depends on the product	Feb 28, 2014 9:32 AM
17	meters	Feb 27, 2014 11:11 PM
18	%	Feb 27, 2014 4:22 PM
19	%	Feb 27, 2014 3:38 PM
20	Product units.	Feb 27, 2014 12:58 PM
21	Mixed	Feb 27, 2014 12:13 PM
22	± a value	Feb 27, 2014 12:02 PM
23	vsad	Feb 27, 2014 11:35 AM
24	in product units	Feb 26, 2014 7:46 PM
25	depending on the product in percentage or absolute residual error	Feb 26, 2014 1:55 AM
26	in %	Feb 25, 2014 5:01 PM
27	all over product relative accuracy	Feb 25, 2014 1:54 PM
28	Pixel and percent level per scene	Feb 25, 2014 1:00 PM
29	in product units	Feb 25, 2014 9:37 AM
30	sdf	Feb 25, 2014 8:35 AM

Page 23, Q2. How is the uncertainty value provided? (e.g. %, in product units, etc.)		
31	in radiance	Feb 24, 2014 10:07 PM
32	%	Feb 24, 2014 9:08 PM
33	in product units.	Feb 24, 2014 4:49 PM
34	%	Feb 24, 2014 4:14 PM
35	in absolute unit (product)	Feb 24, 2014 4:13 PM
36	accuracy assessment, commission/omission,	Feb 21, 2014 5:28 PM
37	%	Feb 21, 2014 4:15 AM
38	unitless?	Feb 20, 2014 4:48 PM
39	cd	Feb 17, 2014 9:57 AM

Page 23, Q3. How do you make use of them? (e.g. weighting, data assimilation etc.)		
1	weighting	Apr 22, 2014 1:06 PM
2	DATA ASSIMILATION	Apr 18, 2014 7:58 AM
3	yes...	Apr 17, 2014 7:28 PM
4	thresholding	Apr 17, 2014 2:45 PM
5	test problematic periods / compare with other data	Apr 17, 2014 1:19 PM
6	Threashold	Apr 15, 2014 7:36 AM
7	DA, model testing	Apr 14, 2014 5:53 PM
8	Using only data points of 'good enough' quality	Apr 14, 2014 5:03 PM
9	As context in model validation - aim to use in data assimilation in future	Mar 24, 2014 12:50 PM
10	weighting and QC in data assimilation (reanalysis); visualisation in nowcasting	Mar 17, 2014 12:30 PM
11	Product assessement	Mar 17, 2014 10:10 AM
12	variable accuracy statement / caution	Mar 14, 2014 4:33 PM
13	weighting	Feb 28, 2014 7:04 PM
14	weighting, inclusion/exclusion	Feb 28, 2014 6:32 PM
15	Communicating product reliability to scientific audience	Feb 28, 2014 12:05 PM
16	Weighting, data aggregation	Feb 28, 2014 9:32 AM
17	accuracy statement	Feb 27, 2014 11:11 PM
18	Weighting	Feb 27, 2014 4:22 PM
19	screening	Feb 27, 2014 3:38 PM
20	Data (pixel) selection per observation time/area.	Feb 27, 2014 12:58 PM
21	our clients have produced a separate geospatial layer with the values as pixels - thus generating and additional analysis layer when decision making	Feb 27, 2014 12:13 PM
22	these are primarily used for reporting the uncertainty, but we could make better use of it through error propagation	Feb 27, 2014 12:02 PM
23	va	Feb 27, 2014 11:35 AM
24	in statistical tests	Feb 26, 2014 7:46 PM
25	uncertainty bounds for ground data comparisons, DA	Feb 26, 2014 1:55 AM
26	data assimilation, modell performance analysis	Feb 25, 2014 5:01 PM
27	weighting	Feb 25, 2014 1:54 PM
28	Quantify margin of errors of carbon flux and accept/reject mapping	Feb 25, 2014 1:00 PM

Page 23, Q3. How do you make use of them? (e.g. weighting, data assimilation etc.)		
29	During the analysis and interpretation of the validation results	Feb 25, 2014 9:37 AM
30	sdf	Feb 25, 2014 8:35 AM
31	part of an optimal estimate retrieval (weights the measurements against the a priori)	Feb 24, 2014 10:07 PM
32	weighting	Feb 24, 2014 9:08 PM
33	Masking and thresholding.	Feb 24, 2014 4:49 PM
34	Weighting thresholding	Feb 24, 2014 4:14 PM
35	weighting for importance in data asszimilation	Feb 24, 2014 4:13 PM
36	by determining if product useful for intended use	Feb 21, 2014 5:28 PM
37	threshold	Feb 21, 2014 4:15 AM
38	interpretation or weight when ingested in habitat suitability models	Feb 20, 2014 4:48 PM
39	df	Feb 17, 2014 9:57 AM

Page 24, Q1. Why don't you make use of the uncertainty information?		
1	same as above. it's not a systemic structure of intrument or retrieval algorith	Apr 17, 2014 2:48 PM
2	qualifier for entire data set	Apr 17, 2014 1:14 PM
3	They are not easy enough	Mar 14, 2014 9:49 AM
4	Haven't had time to adapt own processing chain yet.	Mar 4, 2014 12:16 PM
5	don't know	Feb 25, 2014 11:57 AM
6	use it for information only. no further computation	Feb 24, 2014 4:27 PM
7	gh	Feb 17, 2014 4:26 PM

Page 25, Q1. What uncertainty information would you want? (e.g. per pixel, per scene etc.)		
1	don't know	May 15, 2014 12:09 PM
2	I need an uncertainty value for each observation (i.e. each pixel and each time step).	Apr 29, 2014 9:25 PM
3	per pixel in most cases	Apr 25, 2014 5:13 PM
4	scene/pixel	Apr 23, 2014 7:04 PM
5	per pixel per time step spatial/temporal correlation information	Apr 21, 2014 11:09 AM
6	per pixel	Apr 18, 2014 10:16 AM
7	per pixel	Apr 17, 2014 11:04 PM
8	per pixel	Apr 17, 2014 5:21 PM
9	per pixel, per time-step, per landscape, etc,,,	Apr 17, 2014 2:50 PM
10	per pixel	Apr 17, 2014 1:26 PM
11	per pixel	Apr 17, 2014 12:17 PM
12	per value	Apr 17, 2014 11:52 AM
13	per pixel	Apr 9, 2014 10:11 AM
14	per pixel, the certainty that the value shown is correct.	Mar 19, 2014 12:38 PM
15	per measurement (pixel)	Mar 17, 2014 6:53 PM
16	Variance range.	Mar 17, 2014 11:10 AM
17	on the range and corrections (altimetry)	Mar 17, 2014 10:30 AM
18	Per pixel	Mar 14, 2014 7:34 PM
19	per scene	Mar 14, 2014 5:39 PM
20	per pixel	Mar 14, 2014 9:49 AM
21	ideally per pixel	Mar 12, 2014 9:20 AM
22	per scene	Mar 8, 2014 11:13 AM
23	Per pixel - per pixel aggregate	Mar 8, 2014 10:51 AM
24	Per pixel	Mar 7, 2014 1:19 PM
25	Per pixel	Mar 6, 2014 4:02 PM
26	Ideally per pixel	Mar 4, 2014 3:21 PM
27	Both.	Mar 4, 2014 12:16 PM
28	Per pixel uncertainty estimate.	Feb 28, 2014 7:27 PM
29	Both per pixel and per scene	Feb 28, 2014 5:01 PM

Page 25, Q1. What uncertainty information would you want? (e.g. per pixel, per scene etc.)		
30	per pixel	Feb 28, 2014 12:11 PM
31	per pixel or per scene	Feb 28, 2014 10:38 AM
32	Per pix would be idea. Perhaps a thematic layer with quantitative uncertainty assessment	Feb 27, 2014 7:18 PM
33	per aggregate	Feb 27, 2014 11:40 AM
34	per pixel absolute accuracy	Feb 27, 2014 10:53 AM
35	per pixel	Feb 27, 2014 10:32 AM
36	per scene	Feb 27, 2014 6:09 AM
37	per pixel	Feb 26, 2014 4:59 PM
38	Per scene	Feb 26, 2014 4:08 PM
39	per pixel	Feb 26, 2014 11:45 AM
40	at all levels	Feb 26, 2014 9:50 AM
41	per pixel	Feb 25, 2014 9:45 PM
42	Geometry and radiometry on scene level	Feb 25, 2014 10:01 AM
43	Per pixel	Feb 25, 2014 8:56 AM
44	per pixel	Feb 24, 2014 11:18 PM
45	per pixel	Feb 24, 2014 10:41 PM
46	Yes. We would likely take advantage of whatever was provided.	Feb 24, 2014 8:39 PM
47	per pixel	Feb 24, 2014 6:52 PM
48	as a pixel flag	Feb 24, 2014 6:38 PM
49	per pixel	Feb 24, 2014 6:32 PM
50	Per pixel	Feb 24, 2014 6:14 PM
51	Error covariance matrix of parameters describing BRDF	Feb 24, 2014 5:48 PM
52	per pixel uncertainty	Feb 24, 2014 5:38 PM
53	Per pixel	Feb 24, 2014 5:07 PM
54	Per Pixel will be perfect. But also for some regional products it could be interesting the scene information.	Feb 24, 2014 4:59 PM
55	per pixel	Feb 24, 2014 4:41 PM
56	per pixel	Feb 24, 2014 4:41 PM
57	pixel, land cover class, region	Feb 24, 2014 4:28 PM

Page 25, Q1. What uncertainty information would you want? (e.g. per pixel, per scene etc.)		
58	Per pizel	Feb 24, 2014 4:10 PM
59	per pixel, including interpolated	Feb 24, 2014 4:05 PM
60	Per pixel and per scene	Feb 24, 2014 10:12 AM
61	per pixel or per scene	Feb 24, 2014 9:52 AM
62	depends on use - but suggest both	Feb 24, 2014 4:45 AM
63	Per pixel assessment	Feb 23, 2014 11:36 PM
64	ideally per pixel.	Feb 21, 2014 8:06 PM
65	Per pixel would be ideal but happy to get per scene or sub-scene	Feb 21, 2014 7:06 AM
66	Per pixel	Feb 21, 2014 4:30 AM
67	Heirarchical, pixel, scene and collection (all data processes using the same processing chain)	Feb 21, 2014 4:00 AM
68	per pixel	Feb 20, 2014 11:11 PM
69	cloud/aerosol	Feb 20, 2014 10:40 PM
70	per pixel	Feb 20, 2014 4:51 PM
71	jhgu	Feb 17, 2014 4:26 PM

Page 25, Q2. How would you make use of this? (e.g. weighting, data assimilation, thresholding/masking etc.)		
1	don't know	May 15, 2014 12:09 PM
2	use it in data assimilation to weight the data stream according to the its uncertainty in a multiple constraint cost function	Apr 29, 2014 9:25 PM
3	weighting, data assimilation, masking, error budget on the final product (e.g. water balance)	Apr 25, 2014 5:13 PM
4	masking	Apr 23, 2014 7:04 PM
5	data assimilation	Apr 21, 2014 11:09 AM
6	Possibly all of these.	Apr 18, 2014 10:16 AM
7	data assimilation	Apr 17, 2014 11:04 PM
8	data assimilation and weighting	Apr 17, 2014 5:21 PM
9	data assimilation and Quality control, data interpretation	Apr 17, 2014 2:50 PM
10	weighting	Apr 17, 2014 1:26 PM
11	weighting, thresholding/masking	Apr 17, 2014 12:17 PM
12	threshold/masking	Apr 17, 2014 11:52 AM
13	weighting	Apr 9, 2014 10:11 AM
14	all of the above.	Mar 19, 2014 12:38 PM
15	data assimilation	Mar 17, 2014 6:53 PM
16	Accuracy threshold in the final study	Mar 17, 2014 11:10 AM
17	weighting, thresholding/masking	Mar 17, 2014 10:30 AM
18	I would ignore pixels having unacceptable quality	Mar 14, 2014 7:34 PM
19	all of the above, decision to use scene because of cloudiness or other factors (detector issues, QA unknowns, etc)	Mar 14, 2014 5:39 PM
20	masking	Mar 14, 2014 9:49 AM
21	again simple thresholding to remove / not use 'bad' pixels	Mar 12, 2014 9:20 AM
22	weighting	Mar 8, 2014 11:13 AM
23	Potentially for interpolation and smoothing confidence algorithms	Mar 8, 2014 10:51 AM
24	Data assimilation, climate files describing surface conditions for NWP models	Mar 7, 2014 1:19 PM
25	evaluating the results	Mar 6, 2014 4:02 PM
26	weighting, thresholding/masking	Mar 4, 2014 3:21 PM
27	Weighting and thresholding/masking...	Mar 4, 2014 12:16 PM

Page 25, Q2. How would you make use of this? (e.g. weighting, data assimilation, thresholding/masking etc.)		
28	Data assimilation	Feb 28, 2014 7:27 PM
29	weighting, masking	Feb 28, 2014 5:01 PM
30	weighting, data assimilation, thresholding/masking, to provide confidence intervals to the measurments	Feb 28, 2014 12:11 PM
31	thresholding, masking, development of informational layer to accompany derivative products	Feb 28, 2014 10:38 AM
32	To give weight to interpretation and analysis. For example, if we say these pixels represent a certain land cover class with a degree of certainty would allow verifiers to confirm the analysis results.	Feb 27, 2014 7:18 PM
33	masking	Feb 27, 2014 11:40 AM
34	tbd	Feb 27, 2014 10:53 AM
35	Data assimilation	Feb 27, 2014 10:32 AM
36	weighting	Feb 27, 2014 6:09 AM
37	thresholding	Feb 26, 2014 4:59 PM
38	data assimilation, data verification	Feb 26, 2014 4:08 PM
39	masking	Feb 26, 2014 11:45 AM
40	thresholding and/or weighting	Feb 26, 2014 9:50 AM
41	masking or weighting	Feb 25, 2014 9:45 PM
42	Mult scieen processing	Feb 25, 2014 10:01 AM
43	Thresholding & weighting	Feb 25, 2014 8:56 AM
44	data assimilation	Feb 24, 2014 11:18 PM
45	use in data assimilaton assess what weight to give obs comparing with model	Feb 24, 2014 10:41 PM
46	The first use would be threshholding/masking of data, but we might move into other types of uses beyond that.	Feb 24, 2014 8:39 PM
47	masking of unacceptable product areas	Feb 24, 2014 6:52 PM
48	would allow assessment of the reliability at the pixel level - depending on the application this might then result in masking out certain pixels or giving them lower weighting	Feb 24, 2014 6:38 PM
49	data assimilation, thresholding/masking	Feb 24, 2014 6:32 PM
50	On comparisons with in-situ measurements	Feb 24, 2014 6:14 PM
51	Propagation of uncertainty into Bayes' theorem	Feb 24, 2014 5:48 PM
52	weighting, thresholding, defining sensitivity ranges and dynamics.	Feb 24, 2014 5:38 PM

Page 25, Q2. How would you make use of this? (e.g. weighting, data assimilation, thresholding/masking etc.)		
53	Data analysis	Feb 24, 2014 5:07 PM
54	Masking	Feb 24, 2014 4:59 PM
55	masking	Feb 24, 2014 4:41 PM
56	weighting, thresholding/masking	Feb 24, 2014 4:41 PM
57	weighting	Feb 24, 2014 4:28 PM
58	Data assimilation Thresholding Sensitivity analysis	Feb 24, 2014 4:10 PM
59	both	Feb 24, 2014 4:05 PM
60	thresholding	Feb 24, 2014 10:12 AM
61	thresholding/masking	Feb 24, 2014 9:52 AM
62	QC and if anomalies show in subsequent processing e.g weighted filters , ..	Feb 24, 2014 4:45 AM
63	Per pixel mask development	Feb 23, 2014 11:36 PM
64	weighting, possibly masking	Feb 21, 2014 8:06 PM
65	All of the above and including providing an addtional map fo certainty to be delivered with the value added data products	Feb 21, 2014 7:06 AM
66	Depends on application	Feb 21, 2014 4:30 AM
67	thresholding/masking and confidence metrics	Feb 21, 2014 4:00 AM
68	thresholding/masking and/or weighting	Feb 20, 2014 11:11 PM
69	thresholding and weighting	Feb 20, 2014 10:40 PM
70	masking	Feb 20, 2014 4:51 PM
71	hjgju	Feb 17, 2014 4:26 PM

Page 30, Q1. Who is (are) the product(s) validated by? E.g. data producer, user, independent validation team.		
1	don't know	May 15, 2014 12:11 PM
2	data producer	Apr 29, 2014 9:26 PM
3	by scientists who developed the algorithms and by independent users	Apr 25, 2014 5:15 PM
4	All of them.	Apr 18, 2014 10:17 AM
5	Typically by the data producer.	Apr 17, 2014 7:29 PM
6	sorry? do you mean who validated the products? (your English is unclear to me) I validated it with field campaign data. Also, there are other scientists devoted to validation campagin.	Apr 17, 2014 2:56 PM
7	Modis Land EVAL team	Apr 17, 2014 1:27 PM
8	data producer, independent teams	Apr 17, 2014 1:20 PM
9	user, other scientists with the same applications	Apr 17, 2014 12:18 PM
10	user or independent validation team	Apr 17, 2014 11:53 AM
11	RAL	Apr 15, 2014 7:37 AM
12	Mostly producer	Apr 14, 2014 5:05 PM
13	data producer	Apr 9, 2014 10:12 AM
14	The GlobWAVE project team	Mar 24, 2014 12:51 PM
15	Ourselves	Mar 17, 2014 7:01 PM
16	Other producers Many users	Mar 17, 2014 12:32 PM
17	MERIS MVT (CEOS)	Mar 17, 2014 11:14 AM
18	data producer, user, independent validation team	Mar 17, 2014 10:31 AM
19	Independent validation teams, algorithm developers	Mar 17, 2014 10:11 AM
20	Data producer	Mar 14, 2014 7:36 PM
21	Me	Mar 14, 2014 4:35 PM
22	data producer	Mar 14, 2014 9:50 AM
23	the GHRSST project team run and support various validation activities	Mar 12, 2014 9:22 AM
24	Data producer.	Mar 4, 2014 12:18 PM
25	Not sure.	Feb 28, 2014 7:28 PM
26	data producer, user, independent validation team and scientific community	Feb 28, 2014 6:33 PM
27	data producer	Feb 28, 2014 5:03 PM
28	Independent validation team - mainly individual research groups	Feb 28, 2014 12:07 PM

Page 30, Q1. Who is (are) the product(s) validated by? E.g. data producer, user, independent validation team.		
29	not sure	Feb 27, 2014 12:03 PM
30	don't know	Feb 27, 2014 10:54 AM
31	Data producer, validation team	Feb 27, 2014 10:33 AM
32	Data producer. Other literature publishers by other groups.	Feb 26, 2014 5:00 PM
33	data producers	Feb 26, 2014 4:14 PM
34	data producer	Feb 26, 2014 11:46 AM
35	data producer	Feb 25, 2014 9:47 PM
36	Independent validation team (e.g. EEA topic centre)	Feb 25, 2014 5:02 PM
37	Data producer and independent validation.	Feb 25, 2014 1:55 PM
38	Producer and reviewed by indepdents.	Feb 25, 2014 1:01 PM
39	sdf	Feb 25, 2014 8:35 AM
40	user	Feb 24, 2014 10:44 PM
41	independent scientists	Feb 24, 2014 10:07 PM
42	data producer and user.	Feb 24, 2014 9:09 PM
43	Individual users and ESA cal/val team	Feb 24, 2014 6:15 PM
44	user	Feb 24, 2014 5:00 PM
45	Various people: data producer and independent researchers (published in literature).	Feb 24, 2014 4:50 PM
46	data producer, but not all info is provided	Feb 24, 2014 4:29 PM
47	Often the producer	Feb 24, 2014 4:15 PM
48	Product developer mostly for essential. Independant team is more suitable when resources permit it.	Feb 24, 2014 4:15 PM
49	producer and independent team	Feb 24, 2014 4:06 PM
50	Scientific papers	Feb 23, 2014 11:37 PM
51	both producer and independently.	Feb 21, 2014 8:07 PM
52	data producer	Feb 21, 2014 5:29 PM
53	This varies according to the datasets. Some by the data producers but mainly we do it ourselves	Feb 21, 2014 7:11 AM
54	Internal GIS or analysis group	Feb 21, 2014 4:32 AM
55	End users	Feb 21, 2014 4:16 AM
56	data producer	Feb 21, 2014 4:00 AM

Page 30, Q1. Who is (are) the product(s) validated by? E.g. data producer, user, independent validation team.		
57	users	Feb 20, 2014 4:50 PM

Page 31, Q1. What do you think of the overall quality of the product validation documentation (completeness, intelligibility)?

1	The methods are described in scientific journals. More work needed to deliver the information with the products	Apr 25, 2014 5:20 PM
2	insufficient	Apr 17, 2014 7:30 PM
3	It is completely available via website and searchable, I found it quite usefull and complete.	Apr 17, 2014 1:29 PM
4	OK	Apr 15, 2014 7:37 AM
5	FAPAR products from JRC are fully documented in the literature as well as in technical reports	Apr 14, 2014 5:08 PM
6	Good	Mar 24, 2014 12:51 PM
7	Good	Mar 17, 2014 11:15 AM
8	good	Mar 17, 2014 10:31 AM
9	Can be improved	Mar 17, 2014 10:16 AM
10	Good enough	Mar 14, 2014 7:36 PM
11	It is sufficient for my needs.	Mar 14, 2014 5:10 PM
12	pretty high	Mar 12, 2014 9:23 AM
13	Good	Feb 28, 2014 5:09 PM
14	Fair enough, but it could be improved	Feb 27, 2014 10:35 AM
15	Adequate but could be improved	Feb 26, 2014 11:48 AM
16	good	Feb 25, 2014 5:03 PM
17	Validation carried out is documented clearly.	Feb 25, 2014 1:59 PM
18	good	Feb 24, 2014 10:08 PM
19	not completeness	Feb 24, 2014 9:10 PM
20	It is generally correct and well documented.	Feb 24, 2014 4:16 PM
21	Most validation is published in Scientific papers; not readily available and often for specific sites and locations	Feb 23, 2014 11:38 PM
22	Complete, and adequately understood for users having a basic understanding of Albedo/BRDF concepts.	Feb 21, 2014 8:14 PM
23	in progress, following CEOS/LPV guidelines	Feb 21, 2014 5:30 PM
24	b	Feb 17, 2014 9:27 AM

Page 31, Q2. What do you think about the validation approach used? (assumptions, scaling etc.)		
1	Scaling is a issue, difficult to validate over large areas (e.g. for LAI). Also robustness assessment in different conditions, regions, is an issue	Apr 25, 2014 5:20 PM
2	could be improved.	Apr 17, 2014 7:30 PM
3	In my eyes it is the best way...	Apr 17, 2014 1:29 PM
4	OK	Apr 15, 2014 7:37 AM
5	Best attempt	Apr 14, 2014 5:08 PM
6	Good	Mar 24, 2014 12:51 PM
7	Very good. Refined over mission lifetime, and generally well received by the community	Mar 17, 2014 11:15 AM
8	good	Mar 17, 2014 10:31 AM
9	The approach used are quite diverse, depending on the parameter to be validated, the product heritage and the availability of validation infrastructure. Therefore, the validation approach differ, however, in any case a clear, accessible documentation, including validation protocol, input data and correlative data description and validation best pratice (if not covered in the protocol) need to be provided.	Mar 17, 2014 10:16 AM
10	Okay	Mar 14, 2014 7:36 PM
11	There is always room for improvement, especially if there is budget to cover it.	Mar 14, 2014 5:10 PM
12	its a well though out approach	Mar 12, 2014 9:23 AM
13	I think the scaling issue needs more concern for most of the validation approach.	Feb 28, 2014 5:09 PM
14	Depends on the product	Feb 27, 2014 10:35 AM
15	Limited by regions eg Northern hemisphere	Feb 26, 2014 11:48 AM
16	appropriate for larger areas; not applicable for sub-regions	Feb 25, 2014 5:03 PM
17	Validation is carried out properly taking into account the availability of data.	Feb 25, 2014 1:59 PM
18	stae-of-the-art	Feb 24, 2014 10:08 PM
19	not enough	Feb 24, 2014 9:10 PM
20	Latest validation exercise conducted under the banner of CEOS/LPV is an improvement.	Feb 24, 2014 4:16 PM
21	Often very complicated.	Feb 23, 2014 11:38 PM
22	The MODIS Albedo/BRDF product is "stage 3" validated - extensively validated over a number of validation sites over a range of land cover types and observation conditions - well-validated product.	Feb 21, 2014 8:14 PM
23	in progress, following CEOS/LPV guidelines	Feb 21, 2014 5:30 PM

Page 31, Q2. What do you think about the validation approach used? (assumptions, scaling etc.)		
24	bh	Feb 17, 2014 9:27 AM

Page 31, Q3. What do you think about the quality/uncertainty of the reference data used to validate the product?		
1	We do our best, quality is probably sufficient, the main issue is the sampling over different conditions	Apr 25, 2014 5:20 PM
2	highly variable.	Apr 17, 2014 7:30 PM
3	Validated againts Eddy-Flux towers - hard to state about that uncertainty...	Apr 17, 2014 1:29 PM
4	Sparce	Apr 15, 2014 7:37 AM
5	More work is needed to propose specific observational protocols for field measurements	Apr 14, 2014 5:08 PM
6	Good	Mar 24, 2014 12:51 PM
7	I think the data is fine, however I would like to see it more "up front" so the User knows the accuracy of the product before retrieval.	Mar 17, 2014 11:15 AM
8	good	Mar 17, 2014 10:31 AM
9	This needs to be documented and traced itself to community accepted standards.	Mar 17, 2014 10:16 AM
10	Not usually given	Mar 14, 2014 7:36 PM
11	The reference data is solid.	Mar 14, 2014 5:10 PM
12	multiple in situ datasets and instruments are used so I am quite confident in its quality.	Mar 12, 2014 9:23 AM
13	Limited with the availability of the existing validation data, and may lead to bias when validate the products in terms of spatial and temperal aspects	Feb 28, 2014 5:09 PM
14	It should be reliable, ideally simulated or from ground data	Feb 27, 2014 10:35 AM
15	Limited/lacking	Feb 26, 2014 11:48 AM
16	approriate	Feb 25, 2014 5:03 PM
17	Additional data would enable larger coverage of validation.	Feb 25, 2014 1:59 PM
18	curate's egg	Feb 24, 2014 10:08 PM
19	not well known	Feb 24, 2014 9:10 PM
20	This is a key issue. It depends, no general conclusion.	Feb 24, 2014 4:16 PM
21	Often location specific. Hard to generalise	Feb 23, 2014 11:38 PM
22	They are adequately documented.	Feb 21, 2014 8:14 PM
23	in progress, following CEOS/LPV guidelines	Feb 21, 2014 5:30 PM
24	hgf	Feb 17, 2014 9:27 AM

Page 33, Q1. As you answered yes to the previous question, please indicate how you conduct the product validation.

1	In situ measurements : aerosol optical thickness, LAI, albedo, ...	Apr 25, 2014 5:20 PM
2	ground truth if available	Apr 23, 2014 7:05 PM
3	build/decide reference data, and use the defined validation procedure as community accepted to do the validation.	Apr 22, 2014 1:07 PM
4	comparison with field data own tools to do gapfilling	Apr 21, 2014 11:10 AM
5	With other benchmarking products	Apr 17, 2014 11:04 PM
6	Using matchup data sets from in situ observations	Apr 17, 2014 7:30 PM
7	isn't it same question as above? The most serious problem for current validation set-up is that there is no global consistency. validation itself should be further extended, but even among existing validation data, there is some difference in instrument used for validation or calibration method etc. this makes it difficult to globally compare them. we address this problem in an international conference or workshop. However, sometimes, people in commercial field insist that ECV is ready for use/purchase, saying that we have to live with some errors..error are unavoidable. it's right. Nonetheless, we have a next generation living in the future. they have time and human resources, and money, but need a long term direction to concentrate on and to better exploit their resources. We don't die tomorrow. there is a room for improvement. Rather than spending money and human resources in having the individually developed many different models again and again (using site-specific coefficients requiring calibration), it may be better to concentrate resources on common objective.	Apr 17, 2014 3:07 PM
8	correlations with climate; differences with other products	Apr 17, 2014 1:21 PM
9	Validate the satellite observations with in-situ measurements at certain spots.	Apr 17, 2014 12:19 PM
10	Comparison with ground-truth - estimation of root-mean-square error	Apr 17, 2014 11:54 AM
11	Comparison against model or in-situ measurements where available.	Mar 24, 2014 12:52 PM
12	Validation exercises are often lost in the literature and unclear. they are also done at various stages, reported in different papers. It is ridiculously difficult to get a single data processing statement, that shows where validation has been done, and how it has been done. To resolve this, I end up taking the end value I produce and evaluate that, but that leaves getting to that value being a mass of fuzzy assumptions filled with a lack of clarity. This is a major problem im encountering more and more with using data products. Validation & uncertainty along process chains are never clearly stated or summarised.	Mar 19, 2014 12:42 PM
13	Validate against in-situ data and against model results.	Mar 17, 2014 7:01 PM
14	In situ validation NWP model comparison Triple collocation	Mar 17, 2014 12:32 PM
15	through validation process with in situ data	Mar 17, 2014 10:32 AM
16	Though validation teams.	Mar 17, 2014 10:16 AM
17	I look for consistency among land-cover materials that are invariant	Mar 14, 2014 7:37 PM

Page 33, Q1. As you answered yes to the previous question, please indicate how you conduct the product validation.		
18	verify if the data are in appropriate range and what if any spurious values exist. this survey is asking about a main product. I use many products, some products or programs produce uncertainty data, like CLASlite does for its AutoMCU function	Mar 14, 2014 5:42 PM
19	Primarily spatial accuracy checks against known benchmarks and orthoimagery	Mar 14, 2014 5:11 PM
20	Using own automated schemes.	Mar 4, 2014 12:18 PM
21	cross-check with other data. common sense features and range of values	Feb 28, 2014 6:34 PM
22	Ground based measurements	Feb 28, 2014 12:07 PM
23	Following different approaches depending on the product. If possible, we apply specific quality control procedures based on ISO 19157	Feb 28, 2014 9:34 AM
24	The best we can do, without exhaustive analytics, is a subjective validation, in that "The interpretation or analysis represents the best possible result based on the given data."	Feb 27, 2014 7:19 PM
25	ground truth and cross program correlation, national lab validation	Feb 27, 2014 4:22 PM
26	Comparison with in situ data; comparison with other products.	Feb 27, 2014 12:59 PM
27	ground truthing, and making use of other (similar) data	Feb 27, 2014 12:03 PM
28	no details available	Feb 27, 2014 10:55 AM
29	Ground measurements	Feb 27, 2014 10:35 AM
30	Field spectral measurements of invariant targets	Feb 26, 2014 11:49 AM
31	Field surveys, cross chacking/cross validation using different data sources, radiative transfer modelling	Feb 26, 2014 9:52 AM
32	Comparison against sparse and intensive ground and airborne measurements	Feb 26, 2014 1:56 AM
33	Input data control for completeness sampling approach by comparison with VHR imagery	Feb 25, 2014 5:04 PM
34	I compare with other data sets and in situ or campaign data.	Feb 25, 2014 2:00 PM
35	Random separation of reference area into independent training and validation data sets. Confusion matrix over landcover classification with validation datasets (on the lines of Congalton 1991)	Feb 25, 2014 1:02 PM
36	Geometry: compare with other data sets, Radiometry: comapare with other scnees	Feb 25, 2014 10:03 AM
37	in-situ measurements and product intercomparison	Feb 25, 2014 9:39 AM
38	In situ validation Model comparisson Comparisson with related indicators from different sensors	Feb 25, 2014 8:57 AM
39	sdf	Feb 25, 2014 8:35 AM

Page 33, Q1. As you answered yes to the previous question, please indicate how you conduct the product validation.

40	I validate with ground-observed values. But this is for soil moisture and AET/PET also not really the 'golden standard'.	Feb 24, 2014 11:19 PM
41	Compare with simulated observation from model	Feb 24, 2014 10:44 PM
42	comparison with reference data	Feb 24, 2014 9:10 PM
43	My main product is REFLECTANCE It can be validated partially against field measurements at the day of collection, and against prior acquisitions of the same areas and covers. In many cases it is possible to have only confirmation but the cal/val data is not sufficient for validation.	Feb 24, 2014 6:55 PM
44	by comparison with field and other data we hold	Feb 24, 2014 6:38 PM
45	field observation, topographical maps, image comparison	Feb 24, 2014 6:34 PM
46	I do comparisons with in-house radiometric instruments. However, matchup analysis is difficult to perform in the UK for above water radiometry, due to adverse weather conditions.	Feb 24, 2014 6:17 PM
47	Via our own field work and comparisons	Feb 24, 2014 5:39 PM
48	We have our own network for validation purposes	Feb 24, 2014 5:09 PM
49	Field Campaigns	Feb 24, 2014 5:01 PM
50	By eye examination, comparison with surface air temperatures from stations (for approximate evaluation).	Feb 24, 2014 4:51 PM
51	accuracy assessments	Feb 24, 2014 4:42 PM
52	Field data and independent datasets	Feb 24, 2014 4:15 PM
53	In situ ground measurements	Feb 24, 2014 4:11 PM
54	CEOS Global LAI Validation Good Practices plus sanity checks on data provided	Feb 24, 2014 4:07 PM
55	I use in situ data archive for the region of interest when available	Feb 24, 2014 9:53 AM
56	direct comparison	Feb 24, 2014 4:46 AM
57	in progress, following CEOS/LPV guidelines	Feb 21, 2014 5:30 PM
58	Generally, we incorporate a field validation campaign collecting field spectral, data, sample collection, laboratory measurement of samples and independent measurements with other technologies such as XRD, XRF	Feb 21, 2014 7:12 AM
59	Depends on the product and purpose of analysis	Feb 21, 2014 4:32 AM
60	use alternative product to figure out the differences	Feb 20, 2014 10:41 PM
61	comparing the phenology data to phenocam imagery	Feb 20, 2014 4:50 PM
62	ghj	Feb 12, 2014 9:55 AM

Page 39, Q1. If you have any comments about this survey, please provide them below.		
1	Great project! I hope it will have useful results.	Apr 29, 2014 9:27 PM
2	We mainly work for the preparation of the use of Venμs and Sentinel 1/2. Our responses are probably very specific since we don't use a lot of high level products but generate them by ourselves.	Apr 25, 2014 5:23 PM
3	same as above	Apr 17, 2014 3:08 PM
4	- a range of quality indicators has to high uncertainty themselves -community consensus is not always the best way forward since it tend to leave out the latest developments	Apr 17, 2014 1:23 PM
5	Very important to have standard methods and protocols for quality assurance in satellite-derived quantities	Apr 17, 2014 11:57 AM
6	Questions don't work too well for data providers!	Apr 15, 2014 7:38 AM
7	You nowhere ask about bias, but measurement dependent bias is not uncommon and hard to remove.	Apr 14, 2014 5:55 PM
8	there has been no reference in this survey to Metadata. Given that across Europe, datasets collated by national agencies are being made INSPIRE compliant, it is imperative that satellite-derived datasets conform to the same standards. The survey itself needs revision as half the questions required a further (other +clarify) option. Please do not hesitate to contact me if you wish to clarify any of my answers. I would genuinely be willing to participate.	Mar 19, 2014 12:46 PM
9	The survey appears focused on images and not address more complex EO observations? The survey does not refer to WMO ECV guidelines? Contact details are provided, but it remains unclear what other uses of it may occur?	Mar 17, 2014 12:37 PM
10	Atmospheric composition in not explicitly covered in the initial question(s) questions.	Mar 17, 2014 10:18 AM
11	I hope it is useful since it seems to be too general	Mar 14, 2014 7:37 PM
12	In the climate change sphere (Kyoto Protocol) there are 2-3 standard manuals which are supposedly the standard guides for assessing uncertainty, but to be hones, these are not clear and the information in them is sketchy at best. Having clear understandable standards for the creation of uncertainty data would be very useful. One of the problems is that the governments don't require it because they don't understand nor know how to use it.	Mar 14, 2014 5:46 PM
13	none, thank you	Mar 8, 2014 11:17 AM
14	Some of the questions and their options were too restrictive / irrelevant.	Mar 8, 2014 10:54 AM
15	nice survey	Feb 28, 2014 12:13 PM
16	About time...keep it up!	Feb 27, 2014 4:23 PM
17	All work carried out to improve the quality assessment or error quantification is valuable and welcome. To a certain extent harmonization of methods is good, but one has to realize that still one has to pay extra attention to validation and include validation adapted to product and or application. Oversimplification and mechanistic approach to validation is dangerous. Nothing is sufficient, but all efforts bring us closer to the goal.	Feb 25, 2014 2:07 PM

Page 39, Q1. If you have any comments about this survey, please provide them below.		
18	Several questions had spelling errors and others were need clarification comments.	Feb 25, 2014 1:03 PM
19	Finally, a survey that is to the point, useful and not too long.	Feb 24, 2014 11:20 PM
20	I replied on behalf of Met Office NWP application,	Feb 24, 2014 10:46 PM
21	I was unsure about the marine component presence in this questionnaire, so I added on other parameters... I'd suggest to circulate on IOCCG for the ocean community. I'd be interested to participate on workshops in this project (on the marine aspect). Good luck with the project.Victor	Feb 24, 2014 6:20 PM
22	As research continues in the areas of data processing and information extraction, more detail should be provided in the processing of level 1 data to level 2 and 3 data products, such that "black-box" type algorithms are made available to allow users to continuously update archived material, with a report on how the data will be "improved" and what is corrected compared to the previous release of the processing algorithm.	Feb 24, 2014 5:42 PM
23	I have recently completed a very in-depth user survey regarding product error information and presentation for a new ESA DUE project, GlobTemperature. The survey was specifically concerned with Land Surface Temperature data sets, but the results may be applicable to all EO products and could be of interest for QA4ECV. Should you wish to follow this up, the contact for the survey is Claire Bulgin (c.e.bulgin@reading.ac.uk).	Feb 24, 2014 4:55 PM
24	Would be useful to request funding agencies to be part or aware of this survey (e.g. NSF, EU, GEO projects, CEOS agencies) since many agencies fund projectes without specifying requirement for validation according to community reviewed approaches.	Feb 24, 2014 4:08 PM