

Euro-VO Registry Weather Report

Henrik Norman (Winter Way for ESA), Christophe Arviset (ESA),
Erik Mellegård (Winter Way for ESA), Sara Nieto (Starion for ESA),
Rach Bhatawdekar (ESA), Philip Matsson (Winter Way for ESA)

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- <https://registry.euro-vo.org>
- Reach the team at: esavo.registry@cosmos.esa.int

- Investigated issues for TAP, SIA1, SIA2, SSA
- Cone search later
- 35 Data providers contacted
- 150 Services
- Response rate >80%

Data provider contacts - SIA2 issues

Created by Henrik Norman, last modified just a moment ago

| Issue | Resource | Status |
|--------------------------|---|-----------|
| Failing metadata request | https://vo.ned.ipac.caltech.edu/services/sia | Completed |
| IRSA case sensitivity | https://irsa.ipac.caltech.edu/sia?collection=spitzer_sage&POS=CIRCLE%200.0000%200.0000%200.000 https://irsa.ipac.caltech.edu/sia?collection=spitzer_deepdrill&POS=CIRCLE%200.0000%200.0000%200.000 https://irsa.ipac.caltech.edu/sia?collection=spitzer_feps&POS=CIRCLE%200.0000%200.0000%200.000 https://irsa.ipac.caltech.edu/sia?collection=spitzer_c2d&POS=CIRCLE%200.0000%200.0000%200.000 | Completed |
| IRSA - Faulty access url | ivo://irsa.ipac/2mass/images/allsky ivo://irsa.ipac/2mass/images/cal ivo://irsa.ipac/2mass/images/full ivo://irsa.ipac/2mass/images/sixdeg ivo://irsa.ipac/2mass/images/sixcat ivo://irsa.ipac/wise/images/postcryo ivo://irsa.ipac/wise/images/3bandcryo ivo://irsa.ipac/wise/images/allsky ivo://irsa.ipac/wise/images/allwise ivo://irsa.ipac/wise/images/prelimpostcryo ivo://irsa.ipac/wise/images/prelim | Completed |
| Service Offline | https://dachs.eu.ngrok.io/_system_/sia2/sitewide/siap2.xml | Completed |

Data provider contacts - SIA issues

Created by Henrik Norman, last modified just a moment ago

| Issue | Resource | Status |
|--|---|-----------|
| Service Offline | ivo://wfau.roe.ac.uk/heavens_at_isc/siap-cutout ivo://wfau.roe.ac.uk/sss-siap | Completed |
| Service Offline | ivo://ison.clt/siap | Completed |
| Service Offline | ivo://uk.ac.cam.ast/int-wfs/images/siap-atlas ivo://uk.ac.cam.ast/iphases/images/siap All services from ivo://uk.ac.cam.as are offline | Completed |
| Certificate issue | ivo://kasi_vo/miris/sia_v1 | Completed |
| Typo in the URL - double hh | ivo://vopdc.obspm/gepi/vopsat/esor | Completed |
| Missing metadata and incorrect arraysize | ivo://esavo/new-iso/siap | Completed |
| No data to validate | ivo://padc.obspm.astro/srcj/q/i | Completed |
| No data to validate | ivo://vopdc.obspm/gepi/vopsat/srcj ivo://vopdc.obspm/gepi/vopsat | Completed |
| Incorrect arraysize and missing data to validate | ivo://irsa.ipac/ptf/images/ptf_l1 ivo://irsa.ipac/ptf/images/ptf_l2 ivo://irsa.ipac/wise/images/all-sky/l1b | |

- Euro-VO Registry Validator & taplint, DaCHS
- Services blocked by the ESA Firewall
- SSL Certificate issues
- Redirections from HTTPS to HTTP
- Services are offline
- Ghost resources

| Data provider contacts - TAP issues | | |
|---|--|-----------|
| Created by Henrik Norman, last modified just a moment ago | | |
| Issue | Resource | Status |
| Service does not respond | https://dachs.eu.ngrok.io/tap | Completed |
| Service does not respond | http://vogate.obs-nancay.fr/_system_/tap/run/tap | Completed |
| Incorrect redirection | https://gaia.obspm.fr/tap-server/tap | Completed |
| Service does not respond | http://epn-tap.oeaw.ac.at/tap | Completed |
| Service does not respond | http://cass123-zone1.ast.cam.ac.uk/2dFGRS/TAP http://cass123-zone1.ast.cam.ac.uk/Hipparcos/TAP | Completed |
| Invalid access URL | ivo://cdpp/tap | Completed |
| DaCHS - TAP upload issue | https://vo-pds-ppi.igpp.ucla.edu/tap | Completed |
| DaCHS - TAP query failed | http://evn-vo.jive.eu/tap | Completed |
| DaCHS - TAP query failed | http://voparis-tap-helio.obspm.fr/tap http://voparis-tap-planeto.obspm.fr/tap | Completed |
| Declared tables are inaccessible | http://vespa.cbk.waw.pl/tap | Completed |
| A table in their tap_schema is inaccessible | https://idoc-dachs.ias.u-psud.fr/tap | Completed |
| Private tables in VOSI tables | https://ws-uv.canfar.net/youcat | Completed |
| Redirection issue | http://cda.cfa.harvard.edu/csctap | Completed |
| Error in TAP_SCHEMA | https://xcatdb.unistra.fr/xtapdb | Completed |
| Offline service | http://www.sao.ru/dsa-cats/TAP | Completed |
| Data limit | https://detelab.ovidak.edu/tap | Completed |

Ghost resources – Full Searchable Registries

- Over 20 years of services and registries coming and going
- Exits from the VO are not always graceful
- Registries don't stay up to tell you that their resources have been deleted
- Registry of Registries is the source of truth
- Don't remove entries from registries experiencing a temporary downtime

| | |
|----|--|
| 1 | ivo://astrogrid.cam/hyperheader/service |
| 2 | ivo://au.csiro/org.astrogrid.registry.registryservice |
| 3 | ivo://jacobsuni |
| 4 | ivo://jacobsuni/_system_/adql/query |
| 5 | ivo://jacobsuni/_system_/services/registry |
| 6 | ivo://jacobsuni/_system_/siap2/sitewide |
| 7 | ivo://jacobsuni/~ |
| 8 | ivo://jacobsuni/mars_craters_lagain/q/epn_core |
| 9 | ivo://jacobsuni/mars_craters/q/epn_core |
| 10 | ivo://jacobsuni/planetserver_cism/q/epn_core |
| 11 | ivo://jacobsuni/planmap/q/epn_core |
| 12 | ivo://jacobsuni/tap |
| 13 | ivo://jacobsuni/usgs_wms/q/epn_core |
| 14 | ivo://sao.ru/org.astrogrid.registry.registryservice |
| 15 | ivo://uk.ac.cam.ast/2dfgrs/object-catalogue/object_catalogue_2df_galaxy_redshift_survey |
| 16 | ivo://uk.ac.cam.ast/2dfgrs/object-catalogue/object_catalogue_2df_galaxy_redshift_survey/ceaapplication |
| 17 | ivo://uk.ac.cam.ast/cmc14/catalogue/dbo |
| 18 | ivo://uk.ac.cam.ast/cmc14/catalogue/dbo/ceaapplication |
| 19 | ivo://uk.ac.cam.ast/int-wfs/images/siap-atlas |
| 20 | ivo://uk.ac.cam.ast/int-wfs/observation-catalogue/int_wfs_dqc |
| 21 | ivo://uk.ac.cam.ast/iphas-dsa-catalog/idr |
| 22 | ivo://uk.ac.cam.ast/iphas-dsa-catalog/idr/ceaapplication |
| 23 | ivo://uk.ac.cam.ast/iphas/images/siap |
| 24 | ivo://uk.ac.cam.ast/newhipparcos-dsa-catalog/hipparcos_newly_reduced |
| 25 | ivo://uk.ac.cam.ast/newhipparcos-dsa-catalog/hipparcos_newly_reduced/ceaapplication |
| 26 | ivo://uk.ac.cam.ast/org.astrogrid.registry.registryservice |
| 27 | ivo://uk.ac.cam.ast/skads-dsa-catalog/s3 |
| 28 | ivo://uk.ac.cam.ast/skads-dsa-catalog/s3/ceaapplication |
| 29 | ivo://uk.ac.cam.ast/swirl/service |
| 30 | ivo://vo-plasma.oaaw.ac.at/_system_/services/registry |
| 31 | ivo://vo-plasma.oaaw.ac.at/org |
| 32 | ivo://vo-plasma.oaaw.ac.at/tap |
| 33 | ivo://vo-plasma.oaaw.ac.at/vexmag_epn20/vexmag_epn20/epn_core |
| 34 | ivo://vovv.vu |
| 35 | ivo://vovv.vu/_system_/services/registry |

- https://www.ivoa.net/documents/RegistryInterface/20180723/REC-RegistryInterface-1.1.html#tth_sEc4.2

Experience has shown that when relying on incremental harvests exclusively, minor problems eventually accumulate to severe inconsistencies even when registries declare support for deleted records. It is therefore recommended that harvesting clients occasionally (e.g., semianually) perform full updates to an empty local copy

Euro-VO Registry own validators for protocols:

- Simple Cone Search (SCS) v1.03
- Simple Image Search (SIA) v1.0 & v2.0
- Simple Spectral Access (SSA) v1.1

Euro-VO Registry external validators

- Table Access Protocol (TAP) v1.0 & v1.1 using taplint (STILTS)
- Multi-Order Coverage map (MOC) v1.0, v1.1 & 2.0 using CDS's MOC validator

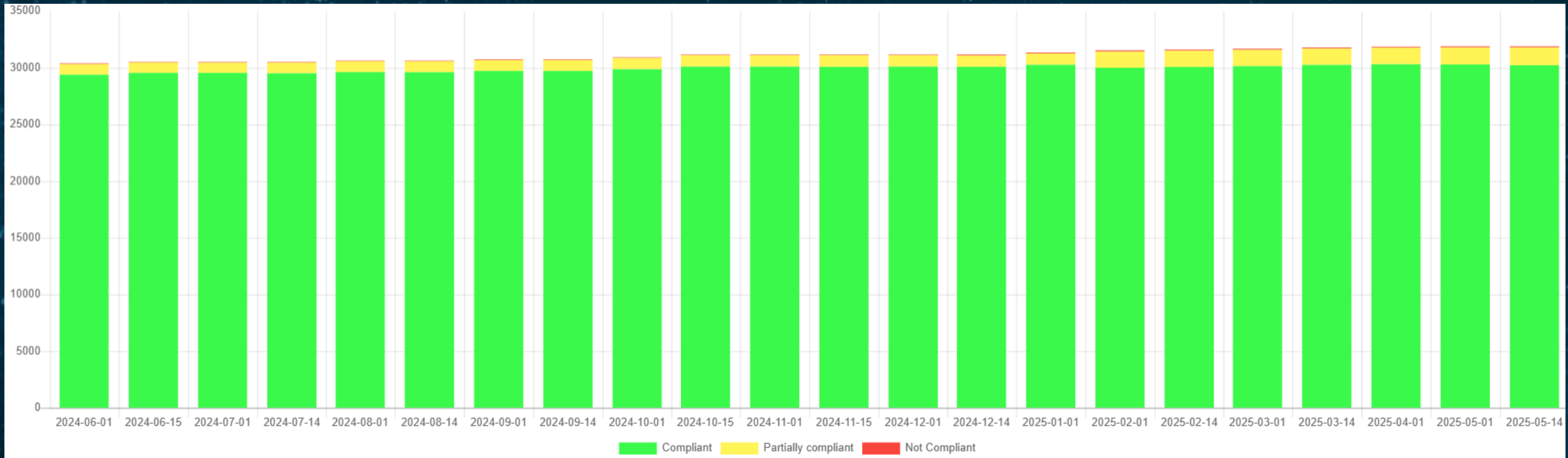
| | |
|------------|--|
| A++ | no criterion fails |
| A+ | no requirement, warning or recommendation fails |
| A | no requirement or warning fails, but at least one recommendation fails |
| B | no requirement fails, but at least one warning fails |

- C** at least one (1) requirement fails, but at least one (1) req equally succeeds
- C-** at least two (2) requirements fail, but at least one (1) req equally succeeds
- C--** at least three (3) requirements fail, but at least one (1) req equally succeeds

| | |
|----------|---|
| D | all requirements fail, but some other criterion (of lesser importance) succeeds |
| E | no criterion succeeds |

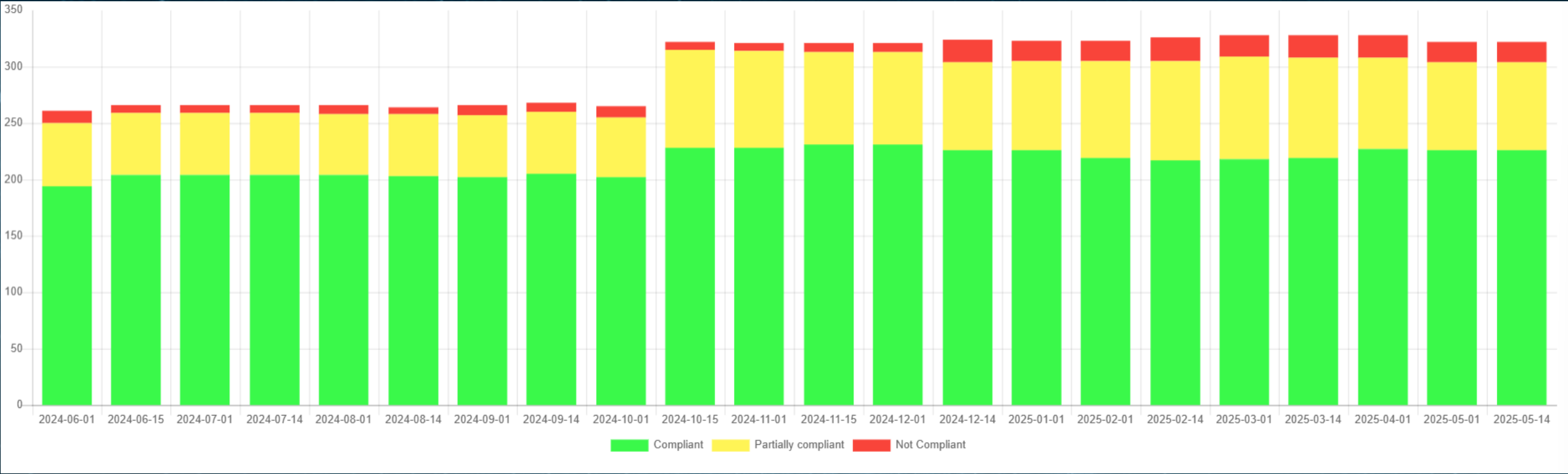
7

SCS – Simple Cone Search



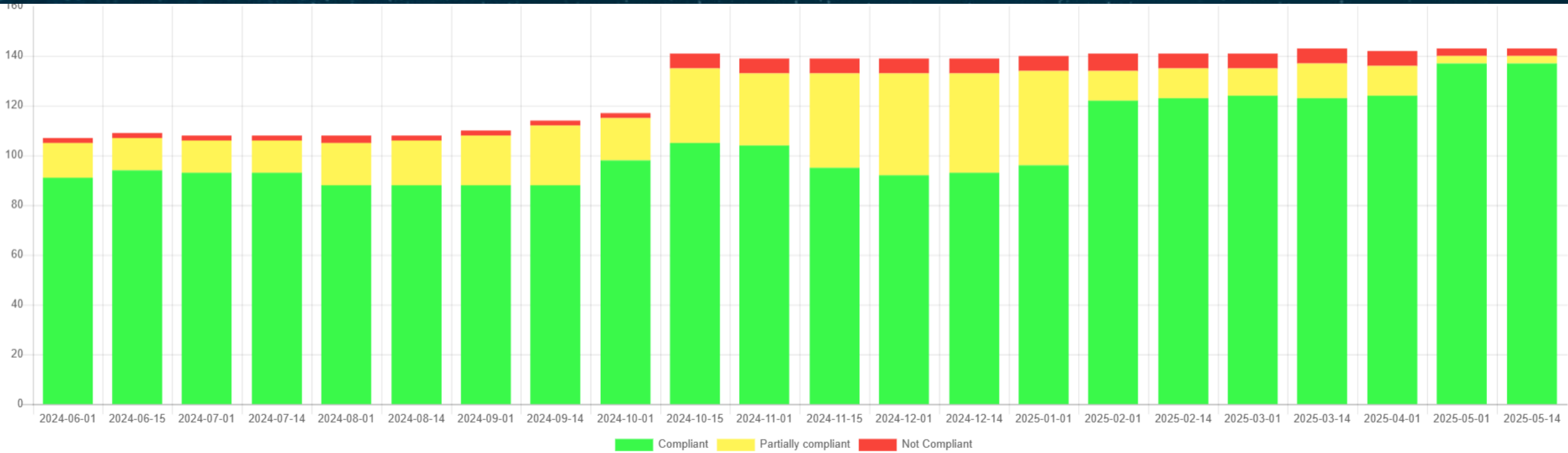
- Partially compliant ~1450
- ~1 400 new SCS services in the last year
- The most common issue
 - Missing ID column
 - More than one ID column – Usually one with UCD=ID_MAIN, and another with UCD=meta.id;meta.main

SIA1 – Simple Image Access Protocol v1.0



- Contacted the owners of 90 services
- Most common issue - No data to validate

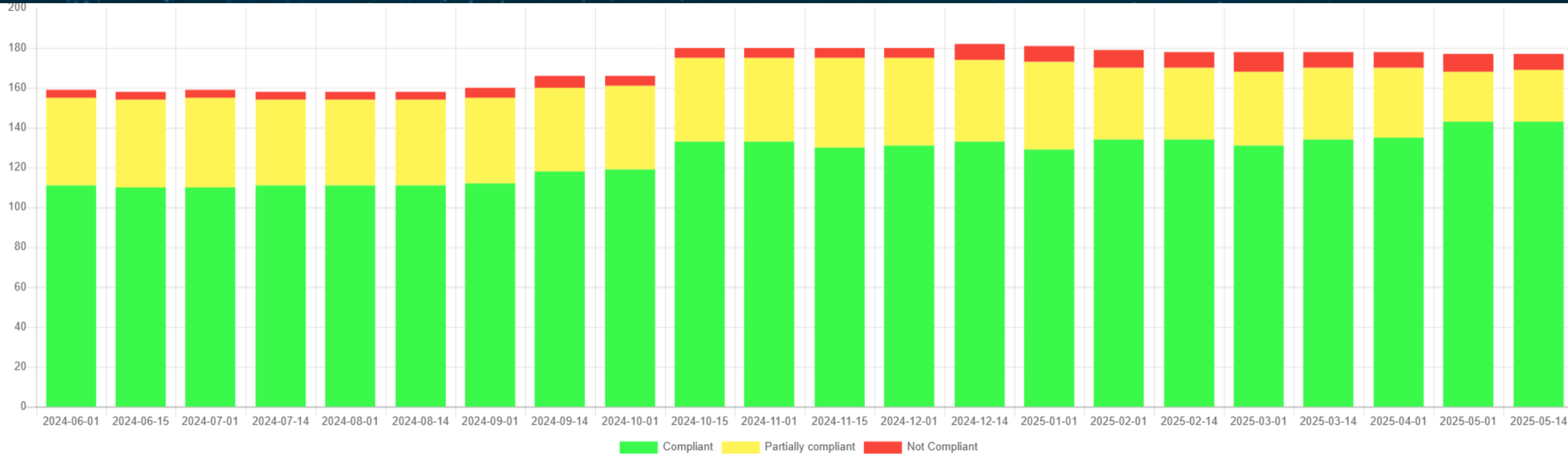
SIA2 – Simple Image Access Protocol v2.0



- Contacted the owners of 17 services
- No problems finding data to validate

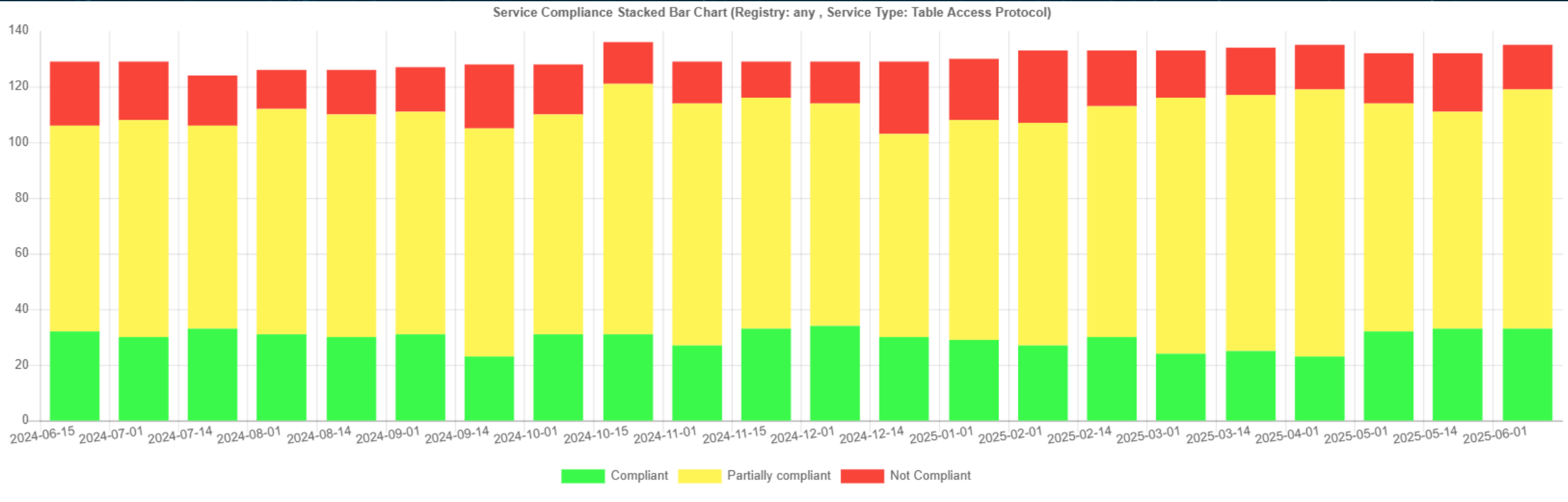


SSA – Simple Spectra Access Protocol v1.1



- Contacted the owners of 15 services
- Was dominated by issues from one data provider

TAP - Table Access Protocol



- 28 Data providers contacted, 32 services
- Diverse issues

Compliant (no requirement fails)

- A++** no criterion fails
- A+** no requirement, warning or recommendation fails
- A** no requirement or warning fails, but at least one recommendation fails
- B** no requirement fails, but at least one warning fails

Partially compliant (some (but not all) requirements fail)

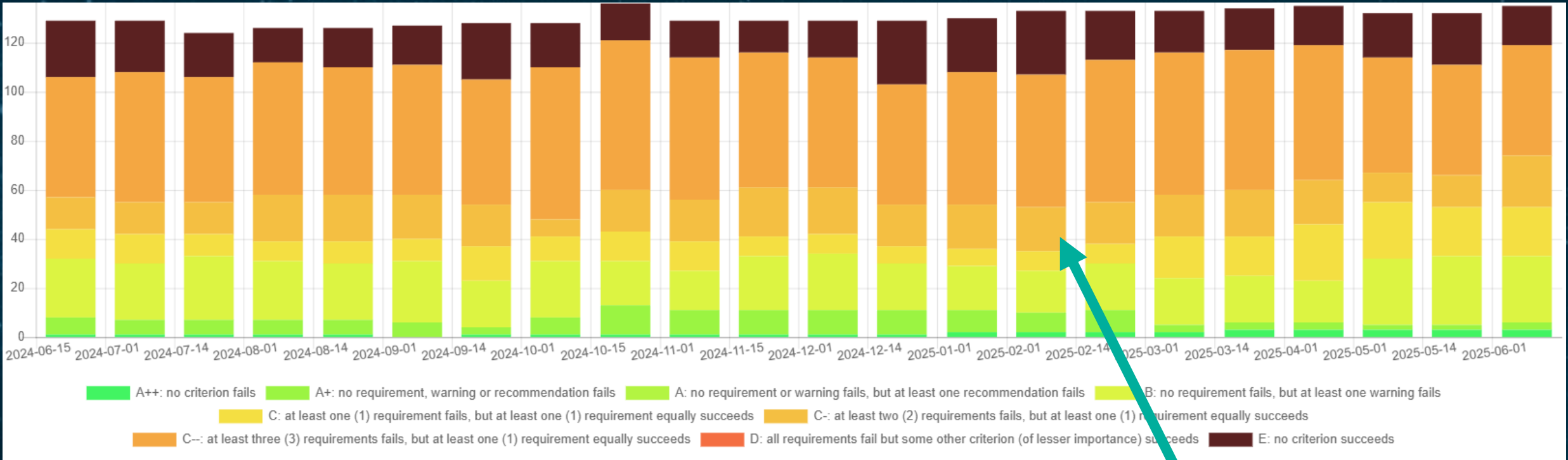
- C** at least one (1) requirement fails, but at least one (1) req equally succeeds
- C-** at least two (2) requirements fail, but at least one (1) req equally succeeds
- C--** at least three (3) requirements fail, but at least one (1) req equally succeeds

Not compliant (all requirements fail)

- D** all requirements fail, but some other criterion (of lesser importance) succeeds
- E** no criterion succeeds

| Criterion Type | |
|----------------|---|
| name | description |
| REQUIREMENT | Tests drawn from 'MUST' statements in the respective standard |
| WARNING | Tests drawn from strongly encouraged 'SHOULD' statements in the respective standard |
| RECOMMENDATION | Tests drawn from 'SHOULD' statements in the respective standard |
| EXTRA | Criteria not defined in the IVOA 'Service Validation' wiki |

TAP Compliance - Gradient



Started to investigate compliance issues

| Requirement failures | January | June |
|---------------------------|---------|------|
| Table Access Protocol 1.0 | 2426 | 1404 |
| Table Access Protocol 1.1 | 1360 | 1074 |



- Continued effort during 2025
- If successful, we may do it again in the future
- If you are experiencing issues registering a resource or improving the compliance of your resource, please let us know, and we'll be happy to assist you
- Reach the team at: esavo.registry@cosmos.esa.int

| Failing requirements | January | June |
|---------------------------|---------|------|
| Simple Image Access 1 | 139 | 124 |
| Simple Image Access 2 | 23 | 12 |
| Simple Spectral Access | 105 | 76 |
| Table Access Protocol 1.0 | 2426 | 1404 |
| Table Access Protocol 1.1 | 1360 | 1074 |