

Euro-VO Registry Weather Report Resources Validation Status

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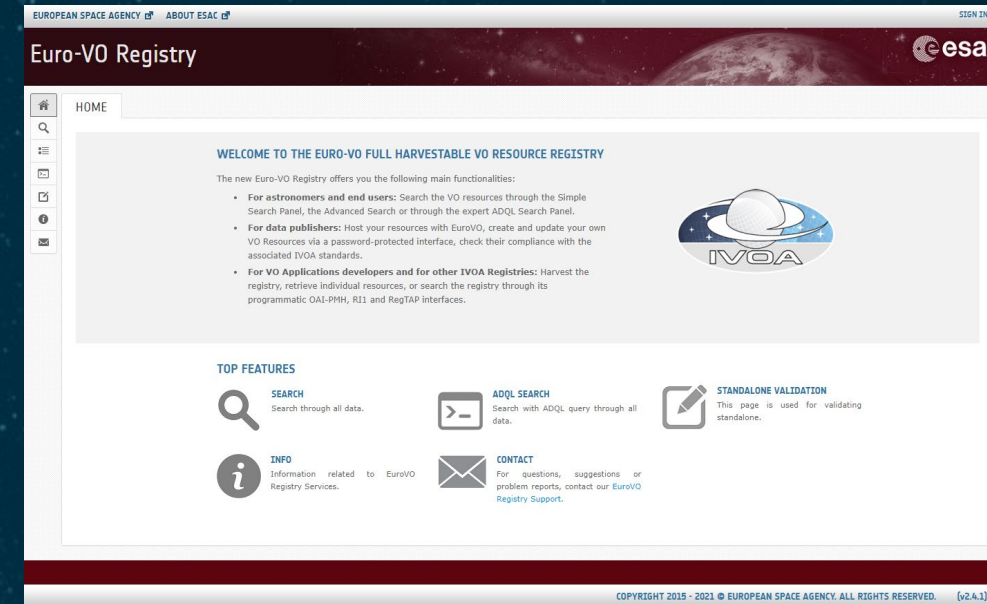


Upcoming Euro-VO Registry v3.0 - what's new



Major upcoming release to come in November 2021:

- Simplified approach for service compliance validation runs
 - 2 per month instead of continuous runs
 - Will simplify charts and will make comparison easier from one run to another
- Fix some issues with SSA validator
- New RegTAP implementation (absi-vo-tap is integrated)
- Euro-VO Registry site and all associated services will be on HTTPS
- VOSI metadata endpoint tools
- Bug fixes and performance improvements
- Fix issues related to RofR validator.



<http://registry.euro-vo.org>



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 validator

- Table Access Protocol (TAP) v1.0 & v1.1 using Taplint



• **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)

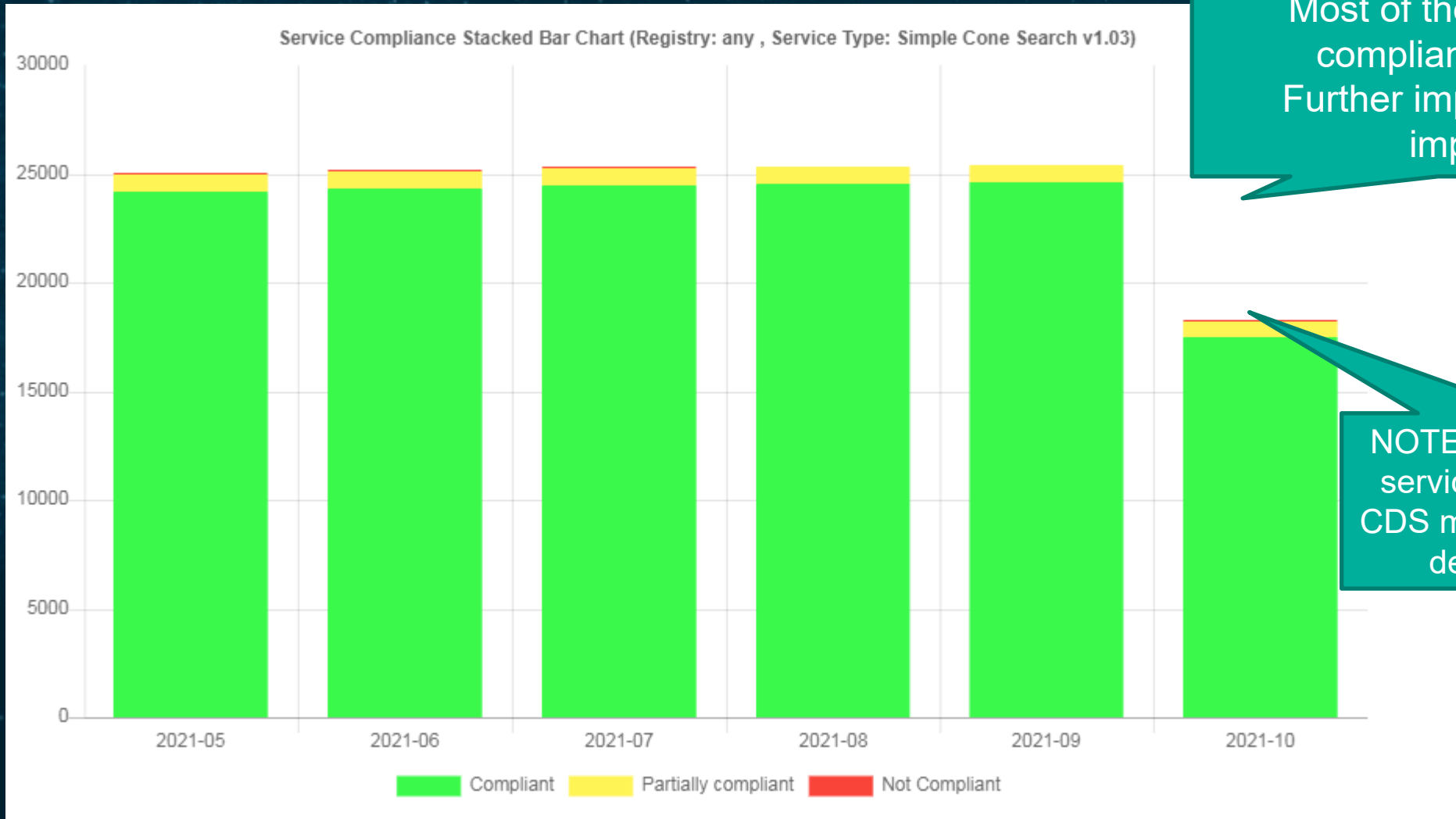
- C** at least one (1) req fails, but at least one (1) req equally succeeds
- C-** at least two (2) reqs fail, but at least one (1) req equally succeeds
- C--** at least three (3) reqs fail, but at least one (1) req equally succeeds

• **not compliant** (all requirements fail)

- D** all reqs 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

Simple Cone Search (SCS)

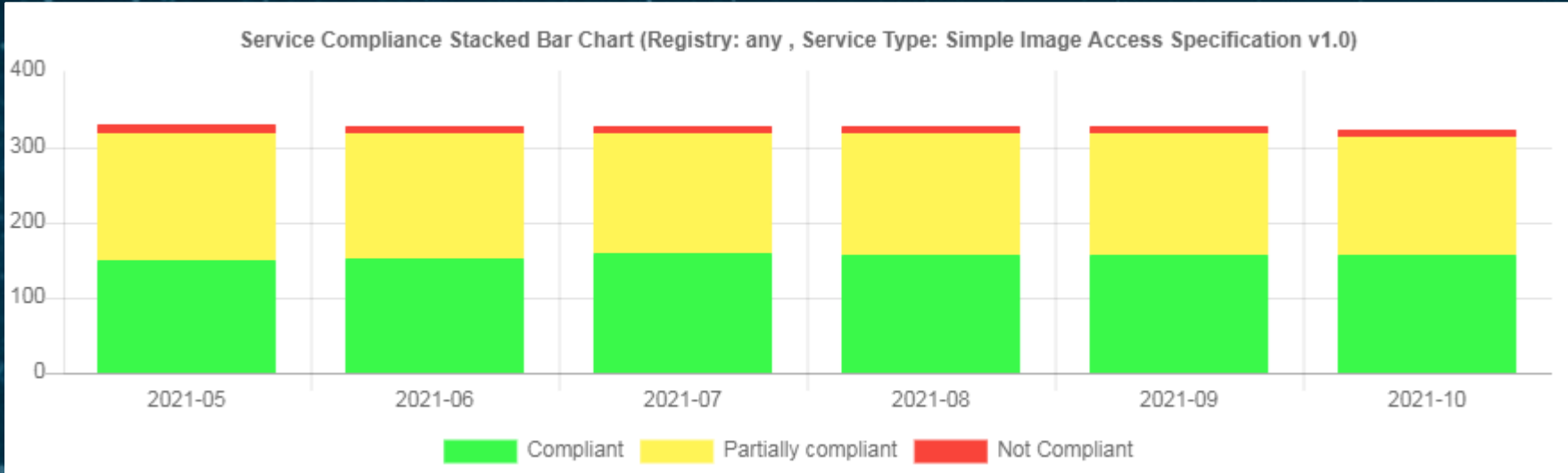


Most of the services are compliant (in green). Further improvement not important

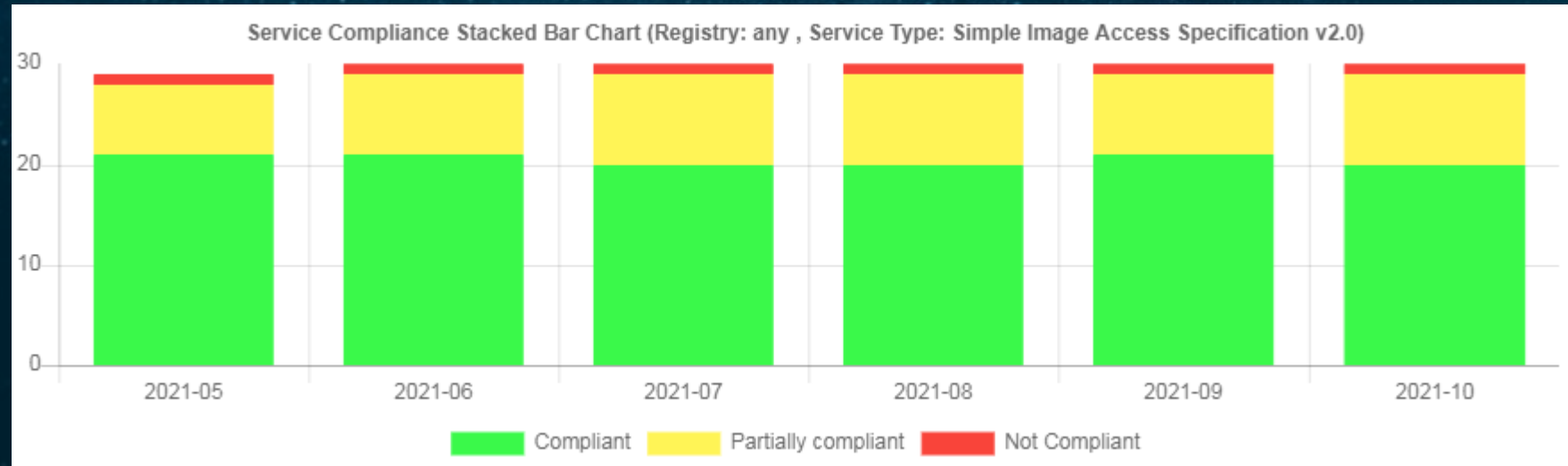
NOTE: The total number of service was reduced after CDS migration (our validator detected the issue)



Simple Image Search (SIA)



SIA v1.0: ~half services are compliant



SIA v2.0: %age of compliant services higher than with SIAv1.0



SIA v1.0 common problems (1/4)

The problem:

Criterion: 4.2.4.a.iv (REQUIREMENT)

Frequency: 11% has this issue.

Description: Exactly one field must have ucd='POS_EQ_RA_MAIN', with datatype='double'

Standard: §4.2 <https://www.ivoa.net/documents/SIA/20091116/REC-SIA-1.0.html#toc-header-11>

Right usage:

```
<FIELD name="Ra" ucd="POS_EQ_RA_MAIN" datatype="double"/>
```

<https://skyview.gsfc.nasa.gov/cgi-bin/vo/sia.pl?survey=408mhz&&POS=0.0,0.0&SIZE=18.000>

There is no arraysize in standard

Wrong usage:

```
<FIELD ID="C28" unit="deg" datatype="double" name="center_ra" ucd="POS_EQ_RA_MAIN" arraysize="1">  
  <DESCRIPTION>ICRS right-ascension of the center of the image</DESCRIPTION>  
</FIELD>
```

http://jvo.nao.ac.jp/skynode/do/siap/akari/fis_image_v1/1.0?POS=0.0,0.0&SIZE=0.000



SIA v1.0 common problems (2/4)

The problem:

Criterion: 4.2.4.a.v (REQUIREMENT)

Frequency: 9% has this issue

Description: Exactly one field must have ucd='POS_EQ_DEC_MAIN', with datatype='double'

Standard: §4.2 <https://www.ivoa.net/documents/SIA/20091116/REC-SIA-1.0.html#toc-header-11>

Right usage:

```
<FIELD name="Dec" ucd="POS_EQ_DEC_MAIN" datatype="double"/>
```

<https://skyview.gsfc.nasa.gov/cgi-bin/vo/sia.pl?survey=408mhz&&POS=0.0,0.0&SIZE=18.000>

There is no arraysize in standard

Wrong usage:

```
<FIELD ID="C29" unit="deg" datatype="double" name="center_dec" ucd="POS_EQ_DEC_MAIN" arraysize="1">
```

```
<DESCRIPTION>ICRS declination of the center of the image</DESCRIPTION>
```

```
</FIELD>
```

http://jvo.nao.ac.jp/skynode/do/siap/akari/fis_image_v1/1.0?POS=0.0,0.0&SIZE=0.000



SIA v1.0 common problems (3/4)

The problem:

Criterion: 4.2.4.a.vi (REQUIREMENT)

Frequency: 8% has this issue

Description: Exactly one field must have ucd='VOX:Image_Naxes', with datatype='int'

Standard: §4.2 <https://www.ivoa.net/documents/SIA/20091116/REC-SIA-1.0.html#toc-header-11>

Right usage:

```
<FIELD name="Dim" ucd="VOX:Image_Naxes" datatype="int"/>
```

<https://skyview.gsfc.nasa.gov/cgi-bin/vo/sia.pl?survey=408mhz&&POS=0.0,0.0&SIZE=18.000>

Wrong usage:

It MUST be field not param

```
<PARAM datatype="int" name="Image_Naxes" ucd="VOX:Image_Naxes" value="2"/>
```

There is no value in field declaration

<http://cda.cfa.harvard.edu/cscsiap/queryImages?POS=0.0,0.0&SIZE=1.000>



SIA v1.0 common problems (4/4)

The problem:

Criterion: effective response (**REQUIREMENT**)

Frequency: 6% has following issues

Description: Could not be tested due to effective content retrieval problem

1. Test query gives no results:

- ivo://astron.nl/apertif_dr1/q/apertif_dr1_continuum_images
https://vo.astron.nl/apertif_dr1/q/apertif_dr1_continuum_images/siap.xml?POS=0.0,0.0&SIZE=0.1
- <ivo://irsa.ipac/Herschel/Images/H-ATLAS> https://irsa.ipac.caltech.edu/cgi-bin/Atlas/nph-atlas?mission=H-ATLAS&hdr_location=%5CH-ATLASDataPath%5C&SIAP_ACTIVE=1&collection_desc=H-ATLAS&POS=187.7059304,12.3911231&SIZE=0.000

Euro-VO Registry validators does not support (yet) Base64

2. Results are Base64 encoded: <ivo://org.gavo.dc/bgds/q/sia>

<http://dc.zah.uni-heidelberg.de/smakced/q/im/siap.xml?POS=187.035594243073,12.0941882809471&SIZE=0.000>



SIA v2.0 common problems (1/1)

The problem:

Criterion: effective response (**REQUIREMENT**)

Frequency: 16% has following issues

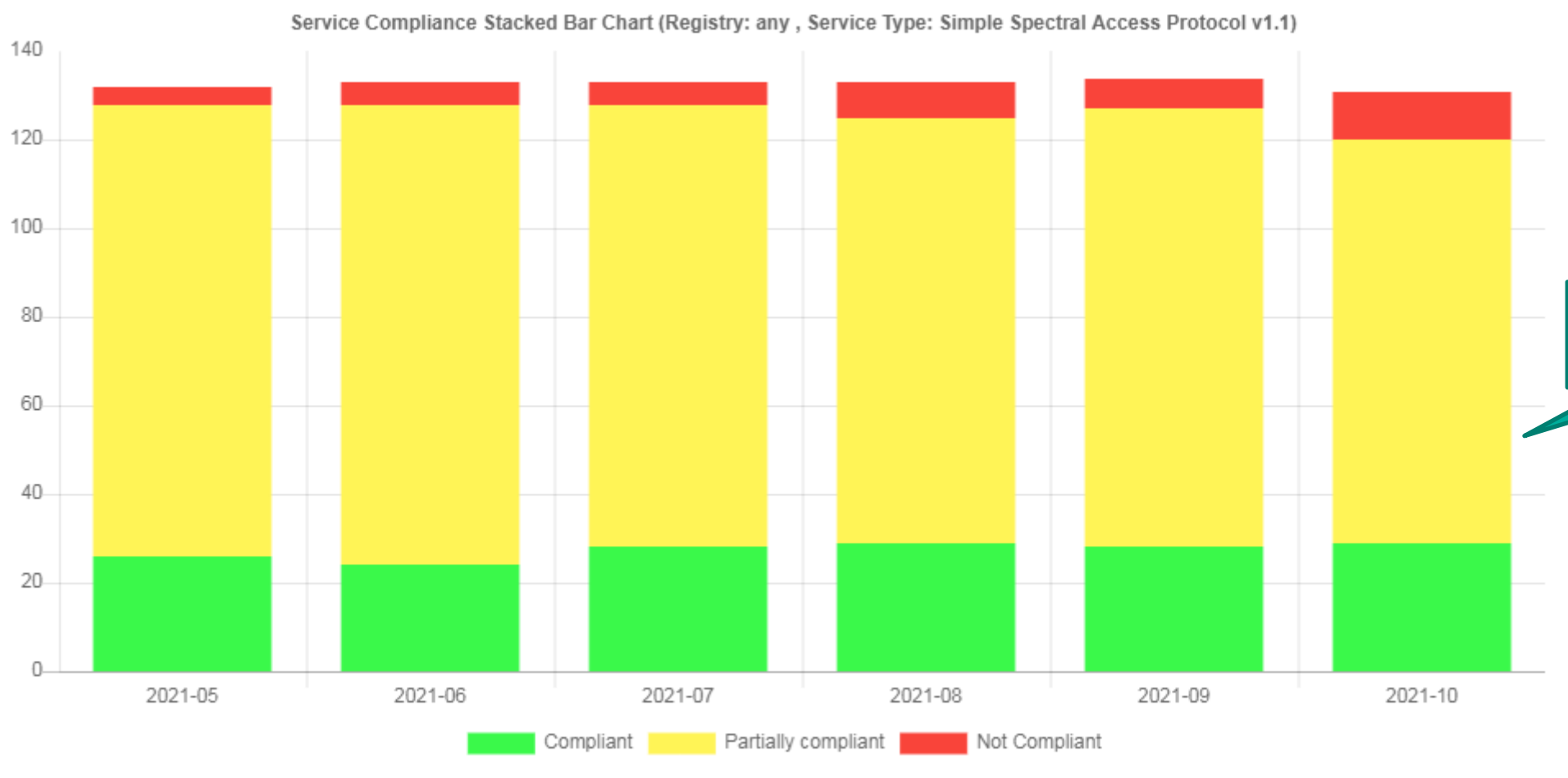
Description: Could not be tested due to effective content retrieval problem

1. **No results and no testQuery** : ivo://jvo/nobeyama
<http://jvo.nao.ac.jp/skynode/do/siap/nobeyama/sfp/siav2/2.0?REQUEST=query&POS=CIRCLE%200.0%200.0%200.000>
2. **Wrong error (Unknown parameter: request)** ivo://irsa.ipac/SIA
<https://irsa.ipac.caltech.edu/SIA?REQUEST=query&POS=CIRCLE%200.0%200.0%200.000>
2. **Validator fail to use testQuery** :ivo://CEFCA/minijpas/MINIJ-PAS-PDR201912
<https://archive.cefca.es/catalogues/vo/siap2/minijpas-pdr201912?REQUEST=query&POS=CIRCLE 214.3998 52.6628 0.5>
3. **Results are Base64 encoded:** ivo://org.gavo.dc/ __system__ /siap2/sitewide
http://dc.zah.uni-heidelberg.de/ __system__ /siap2/sitewide?REQUEST=query&POS=CIRCLE%200.0%200.0%200.000

Euro-VO Registry validators does not support (yet) Base64



Simple Spectral Access (SSA)



Many partial compliant



SSA common problems (1/4)

The problem:

Criterion: 4.2.5.1 (REQUIREMENT)

Frequency: 17% has this issue

Description: Access.Reference | URI (URL) used to access the dataset | MAN

Standard: §4.2.5.1 <https://www.ivoa.net/documents/SSA/20120210/REC-SSA-1.1-20120210.htm>

Right usage:

```
<FIELD name="Access_Ref" ID="Access_Ref_100" datatype="char" arraysize="*" ucd="meta.ref.url" utype="ssa:Access.Reference">  
  <DESCRIPTION>URL used to access dataset</DESCRIPTION>  
</FIELD>
```

[http://cdsarc.u-strasbg.fr/saadavizier/ssaservice?collection=\[vizier\]&&POS=0.0.0.0&SIZE=0.001](http://cdsarc.u-strasbg.fr/saadavizier/ssaservice?collection=[vizier]&&POS=0.0.0.0&SIZE=0.001)

Wrong usage:

```
<FIELD arraysize="*" datatype="char" name="datalink_url" ucd="meta.ref.url" utype="ssa:Access.Reference">  
  <DESCRIPTION>The URL that can be used to download the data set.</DESCRIPTION>  
</FIELD>  
<FIELD arraysize="*" datatype="char" name="access_url" ucd="meta.ref.url" utype="ssa:Access.Reference">  
  <DESCRIPTION>The URL that can be used to download the data set.</DESCRIPTION>  
</FIELD>
```

Multiple times

<http://archive.eso.org/ssap?REQUEST=queryData&&POS=0.0.0.0&SIZE=0.000>



SSA common problems (2/4)

The problem:

Criterion: 4.2.5.4a (REQUIREMENT)

Frequency: 14% has this issue

Description: Dataset.DataModel | Datamodel name and version | MAN

Standard: §4.2.5.4 <https://www.ivoa.net/documents/SSA/20120210/REC-SSA-1.1-20120210.htm>

Right usage:

```
<GROUP name="Spectrum">  
  <PARAM name="Dataset_Dat" datatype="char" arraysize="*" utype="ssa:Dataset.DataModel" value="Spectrum-1.03"/>  
  ...  
</GROUP>
```

[http://cdsarc.u-strasbg.fr/saadavizier/ssaservice?collection=\[vizier\]&&POS=0.0,0.0&SIZE=0.001](http://cdsarc.u-strasbg.fr/saadavizier/ssaservice?collection=[vizier]&&POS=0.0,0.0&SIZE=0.001)

Wrong usage:

No Dataset.DataModel declared

<http://archive.eso.org/ssap?REQUEST=queryData&&POS=0.0,0.0&SIZE=0.000>



SSA common problems (3/4)

The problem:

Criterion: 4.2.5.10a (REQUIREMENT)

Frequency: 12% has this issue

Description: Char.SpatialAxis.Coverage.Location.Value | Observed position, e.g., RA DEC | MAN

Standard: §4.2.5.10 <https://www.ivoa.net/documents/SSA/20120210/REC-SSA-1.1-20120210.htm>

Right usage:

```
<FIELD name="coord_obs" datatype="double" ucd="pos.eq" utype="ssa:char.spatialaxis.coverage.location.value" unit="deg" arraysize="2"><DESCRIPTION>RA and Dec of observation</DESCRIPTION>
```

```
</FIELD>
```

<https://archive.stsci.edu/ssap/search2.php?id=IUE&&POS=0.0,0.0&SIZE=0.001>

Multiple times

Wrong usage:

```
</FIELD>
```

```
<FIELD ID="COLID_6145" name="catalogue_ra" utype="ssa:Char.SpatialAxis.Coverage.Location.Value" datatype="double" ucd="pos.eq.ra">
```

```
<DESCRIPTION></DESCRIPTION>
```

```
</FIELD>
```

```
<FIELD ID="COLID_6146" name="catalogue_dec" utype="ssa:Char.SpatialAxis.Coverage.Location.Value" datatype="double" ucd="pos.eq.dec">
```

```
<DESCRIPTION></DESCRIPTION>
```

```
</FIELD>
```

<http://dr1.lamost.org/voservice/ssap?POS=0.0,0.0&SIZE=0.500>



SSA common problems (4/4)

The problem:

Euro-VO Registry validator is not using the REQUEST=queryData (we have to fix it as it is mandatory)

Frequency: 4% has this issue

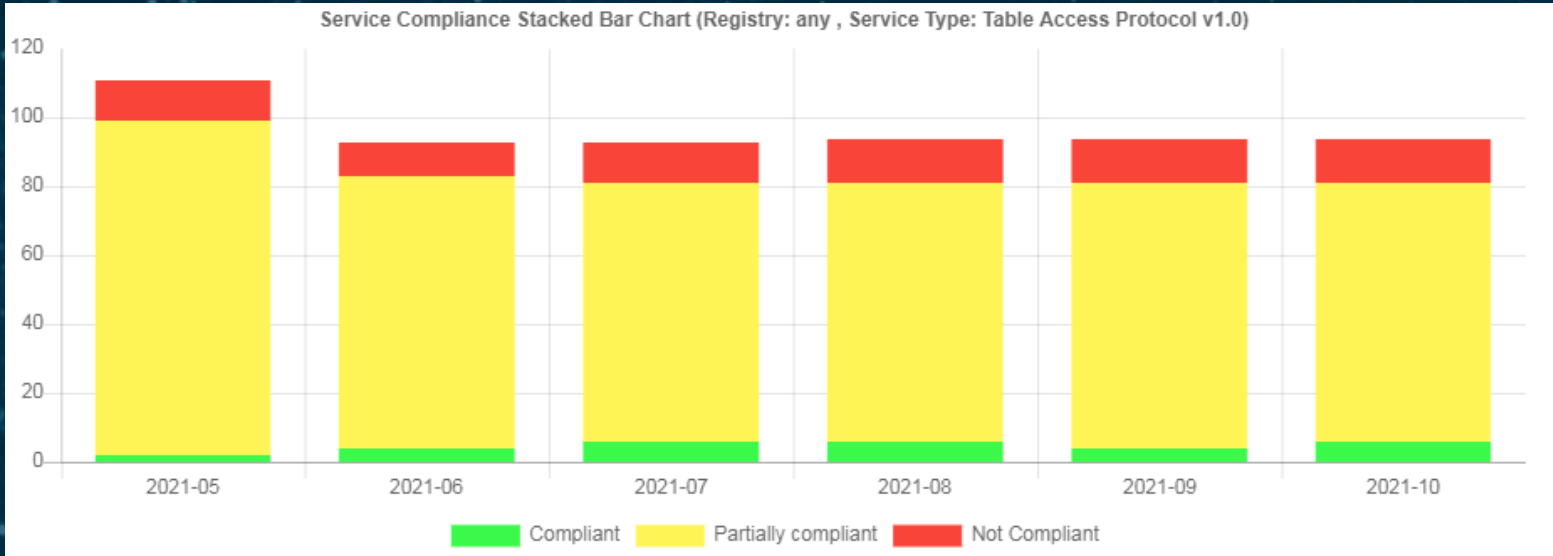
Standard: <https://www.ivoa.net/documents/SSA/20120210/REC-SSA-1.1-20120210.htm>

<http://dc.zah.uni-heidelberg.de/bgds//ssa/ssap.xml?REQUEST=queryData&POS=0.0,0.0&SIZE=0.000>

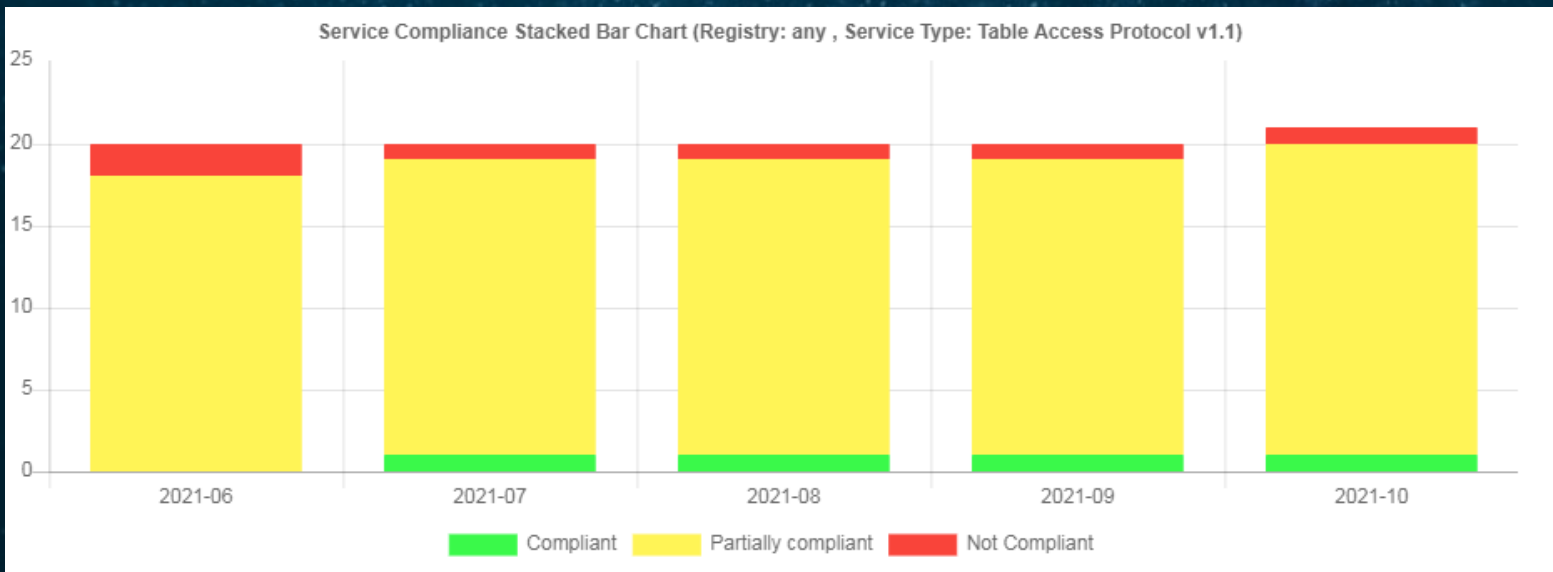
This will be fixed in the Euro-VO Registry Validator as part of the Euro-VO Registry v3.0 release in November 2021.



Table Access Protocol (TAP)



TAP v 1.0



TAP v 1.1



Table Access Protocol (TAP) – most common errors



TAP v1.0	
code	description
E_QERR	Query failed : Check content of tables metadata from TAP_SCHEMA: TAP query failed
F_NOUP	No upload methods listed
E_CRSV	Column name ADQL reserved word
E_FKIO	Error reading TAP_SCHEMA.keys table
E_CLIO	Error reading TAP_SCHEMA.columns table
E_KCIO	Error reading TAP_SCHEMA.key_columns table
E_DENO	Non-404 response for deleted job
TAP v1.1	
code	description
E_TMCX	Upload result column xtype mismatch
W_CPUL	Non-standard access URL for standard interface
W_CULF	Custom language feature type
W_EXVC	Potentially problematic examples RDFa vocab attribute
W_CCAS	Capitalisation mismatch
E_EXDH	Examples declaration/presence mismatch

