As INSPIRE is coming into a practical implementation phase there is a great need for tools for validation of INSPIRE metadata, network services and data. To meet this need and to overcome issues with different interpretations in existing validator implementations at EU level, in MS or projects (e.g. in the EU geoportal, the Netherlands, Germany and the eENVplus project), common Abstract and Executable Test Suites (ATS and ETS) and a common validator (the INSPIRE test framework) have been developed under action MIWP-5 of the MIWP 2014-2016.

The work under this action resulted in the following ATS and ETS for the following TGs:

- Metadata (v1.3) (ATS, ETS)
- Download services (Atom, WFS) (ATS, ETS)
- View services (ATS)
- Discovery Services (ATS)
- Data specifications (common requirements and theme-specific requirements for Annex I themes) (ATS, ETS)
- Spatial data services (ATS)

In order to provide a complete test framework, the following components would still need to be added to the INSPIRE validator:

- Metadata v2.0 (ATS and ETS)
- Annex II data specifications (ATS, ETS)
- Annex III data specifications (ATS, ETS)
- View Services, WMS (ETS)
- View Services, WMTS (ETS)
- Download Services, SOS (ATS, ETS)
- Download Services, WCS (ATS, ETS)
- Discovery Services (ETS)

Some budget is foreseen in the 2017 work programme of the ELISE ISA² action for further developments on the validator. However, this will likely have to be complemented with additional contributions from Member States (either through funding or experts) and/or the Commission. It should be discussed how to coordinate the further development and its funding between all parties interested to contribute.

Furthermore, with increasing use, it is expected that there will also be an increasing number of change proposals and bug reports for the software and the implemented tests. These may also affect the underlying Abstract Test Suites or even lead to change proposals to the requirements in the TGs.

Finally, also the discussions around the maturity level concept in action 2016.1 may have an impact on the structure, implementation and/or presentation of the tests in the common validator.

| Proposed action | Refocus the aims of the action to |
- coordinate the maintenance of the existing framework, ATS and ETS and the development of the missing ATS and ETS, including coordination of funding and release planning and clear communication of changes between releases,
- discuss how the maturity level concept can be reflected in the common validator,
- coordinate the funding of the maintenance and further developments,
- promote the usage of the validator in the MS,
- advise the EC on different scenarios for the long-term sustainability of the test framework.

For the managing feedback on the common validator, ATS and ETS, the following governance framework is proposed:

- All issues should be submitted via a common helpdesk, ideally as part of the INSPIRE Knowledge Base.
- An initial assessment and classification (triage) will be carried out by JRC, potentially supported by contractors.
- Minor issues/bugs will be fixed directly.
- Notable issues will be discussed in a MIG sub-group on validation (see organisational set-up below) and either fixed directly or submitted to MIG.
- Any changes with major impacts on the validator, or impacting on the TGs, will be discussed with the MIG.

<table>
<thead>
<tr>
<th>Link to REFIT evaluation</th>
<th>Specific proposed actions on &quot;assisting Member States in applying and implementing the INSPIRE Directive set out in Recommendations&quot; (page 12 of COM(2016)478).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Links &amp; dependencies</td>
<td>Dependencies:</td>
</tr>
<tr>
<td></td>
<td>The action may be affected by updates to TGs carried out by other actions under the MIWP.</td>
</tr>
<tr>
<td></td>
<td>Vice versa, feedback on the common validator may also affect the underlying Abstract Test Suites or even lead to change proposals to the requirements in the TGs.</td>
</tr>
<tr>
<td></td>
<td>The action will discuss how the maturity level concept can be reflected in the common validator.</td>
</tr>
<tr>
<td>Links</td>
<td>The common validator could be used by MS to support the monitoring of the conformity of metadata, network services and data.</td>
</tr>
<tr>
<td></td>
<td>The common validator will be used for metadata and service validation in the EU geoportal.</td>
</tr>
</tbody>
</table>

| Organisational set-up    | This action will be carried out by JRC, with support from                                                      |
|                          |   external contractors (and potentially MS experts) for the development and maintenance of the test framework, ATS and ETS, and |
|                          |   a temporary MIG sub-group including MIG representatives and experts from the pool of experts, that will     |
|                          |     o   support the resolution of notable comments received on the validator, ETS and ATS and, where relevant, the formulation of change requests to TGs and/or IRs, |
|                          |     o   discuss and provide recommendations of how the maturity level concept can be reflected in the common validator, |
|                          |     o   promote the usage of the validator in the MS,                                                         |
|                          |     o   advise the EC on different scenarios for the long-term sustainability of the test framework.          |

| Lead                     | JRC                                                                                                           |
| **Scope** | • Validation of data, network services and metadata based on requirements in the TGs  
• Validation against the requirements in the IRs is out of scope |
| **Tasks** | • Coordinate the maintenance of the existing framework, ATS and ETS and the development of the missing ATS and ETS, including coordination of funding and release planning and clear communication of changes between releases,  
• Discuss how the maturity level concept can be reflected in the common validator,  
• Coordinate the funding of the maintenance and further developments,  
• Promote the usage of the validator in the MS,  
• Advise the EC on different scenarios for the long-term sustainability of the test framework |
| **Outcomes** | • Complete and operational common validator  
• Recommendations of how the maturity level concept can be reflected in the common validator  
• Operational change management process  
• Report on scenarios for the long-term sustainability of the test framework |
| **Timeline** | Date of Kick-off: Oct 2017  
Proposed Date of Completion: 30/12/2019 |
| **Required human resources and expertise** | The members of the temporary sub-group should have expertise in one or several of the following areas:  
• Specification and implementation of validation rules for metadata, network services and/or data interoperability  
• Coordination of the development of validation software (for metadata, network services and/or data) at national level  
• Implementing Rules and Technical Guidelines for metadata, network services and/or data interoperability and their implementation.  
The implementation of the commonly agreed validator requires expertise in software development for distributed information architectures. |
| **Required financial resources** | • Workshop reimbursement  
• Contracts for development and maintenance of the test framework, ETS and ATS  
• Hosting and operation of operational service  
Some budget is foreseen in the 2017 work programme of the ELISE ISA2 action for further developments on the validator.  
Additional resources should be sought from Member States (either through funding or experts) and/or the Commission. |
| **Risk factors** | Overall risk level of the action  
☐ High  
☒ Medium  
☐ Low  
| Risk factors to be considered  
☒ Missing Resources  
☒ High Complexity  
☒ Interdependencies with other Actions  
Others: |
| **Possible funding** | • ELISE ISA² action  
• DG ENV funding  
• MS funding / in-kind contributions |