

## 5 Top reasons to use the Interoperability Test Bed

- ISA<sup>2</sup>'s test bed allows for both interoperability and conformance testing. Reference implementations of services (e.g. simple web services or messaging applications) can be exposed for clients to connect to.
- The software provides an intuitive user interface that visualises message flows. Test results are provided in a standardised, machine-readable format.
- The test bed is based on best practices and exposes standardised interfaces according to specifications from the CEN GITB WS-A (phase 3).
- The test bed can cooperate with other GITB-compliant test beds to execute tests in a distributed environment.
- Capabilities of existing test beds, validation services and simulators can be orchestrated in common scenarios if they expose GITB-compliant interfaces.

## An action supported by ISA<sup>2</sup>

The Interoperability Test Bed is developed under action 4.2.6<sup>4</sup> of the ISA<sup>2</sup> Programme of the European Commission.

ISA<sup>2</sup> is the European Commission's programme for interoperability solutions for European public administrations, businesses and citizens.

## Why ISA<sup>2</sup>

Administrative procedures have the reputation of being lengthy, time-consuming and costly. Electronic collaboration between public administrations can make these procedures quicker, simpler and cheaper for all parties concerned, in particular when transactions need to be carried out cross-border and/or cross-sector.

ISA<sup>2</sup> supports this type of electronic collaboration. With more than 40 actions it provides tools, services and frameworks for the modernisation of public administrations in Europe, across e-borders and sectors.

### *More on the programme:*

<http://ec.europa.eu/isa/isa2>

### *Contact ISA:*

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# Interoperability Test Bed

**ISA<sup>2</sup> programme**  
*Interoperability Solutions for  
European Public Administrations,  
businesses and citizens*

<sup>4</sup> [http://ec.europa.eu/isa/actions/04-accompanying-measures/4-2-6action\\_en.htm](http://ec.europa.eu/isa/actions/04-accompanying-measures/4-2-6action_en.htm)

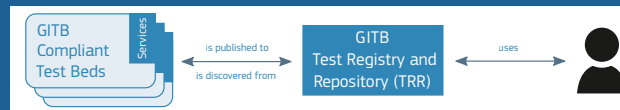
# The Business Need

European and national public administrations have developed a multitude of IT systems which are faced with the increasingly common requirement to work together. This cooperation becomes more challenging considering the range of different technologies used to implement such systems but also, at higher levels, the diverse organisational structures they support and the varying semantics that may be applied to the exchanged information.

Establishing interoperability is a process that requires alignment on all levels (Legal, Organisational, Semantic and Technical), posing a significant challenge on testing to ensure the required alignment.

This testing challenge is in fact twofold, on the one hand on the system under development that needs to run interoperability tests as early as possible in its elaboration phase, and on the other hand on service providers that need a means to expose their services for testing without impacting production operations.

# The Product



The ISA<sup>2</sup> Interoperability Test Bed provides generic testing facilities to initiatives that create interoperability solutions in a cross-border context or linked to European Legislation. It offers...

- a test bed service that can run conformance and interoperability tests;
- the possibility to host reference implementations of specifications/services for clients to test against;
- a Test Registry and Repository<sup>1</sup> to store Test Artefacts (assertions, test cases, validation schemas etc.) and federate Test Services (validation services, simulator services etc.).

# What has been accomplished

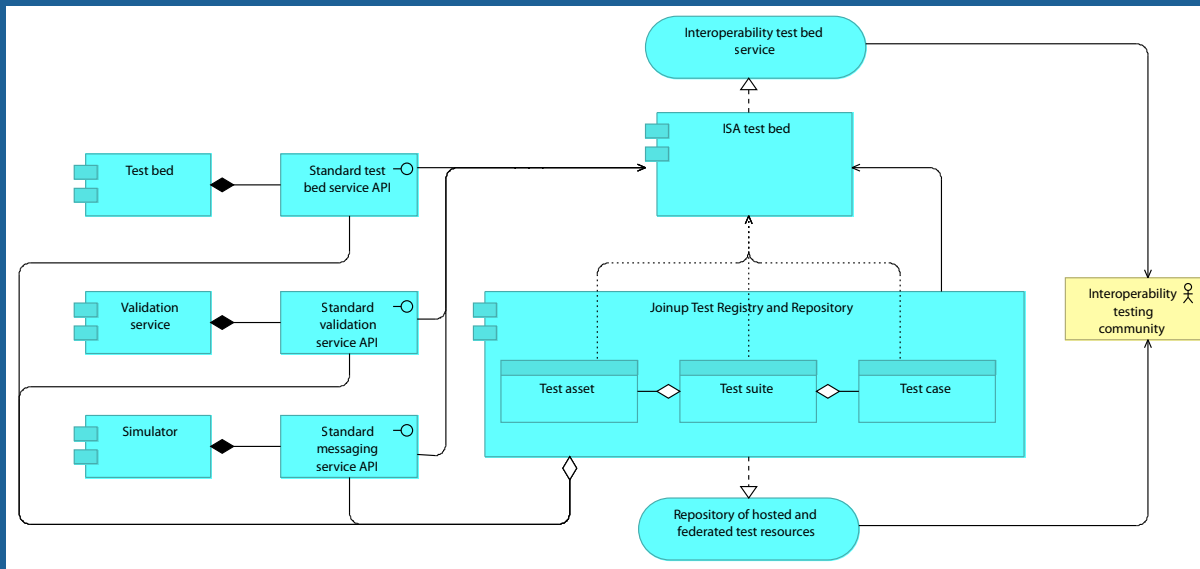
- The test bed service has been currently deployed in a demo environment, based on software created by the CEN GITB Workshop agreement<sup>2</sup>. It will be made available in spring 2016 for production use.
- Reference implementations are available for certain solutions relevant to interoperability; e.g. the AS2 and AS4 protocols.
- Conformance testing against XML Schema and Schematron rules is available in the test bed and has been demonstrated for UBL<sup>3</sup>.

## Who is already using it

Testing for electronic invoice exchange using the CEF e-Invoicing DSI will be made available in summer 2016.

## Who else can potentially use it

Initiatives (public administrations, funded projects etc.) with relevance to (cross-border) interoperability can apply to have their reference implementations and test suites installed in the test bed, for their respective communities to use. Software owners, who want to test connectivity of their products against a supported reference implementation, or who want to check conformance of their messages against a schema, can then freely use the test bed.



1 <https://joinup.ec.europa.eu/catalogue/repository/gitb-trr>

2 <http://www.cen.eu/work/areas/ict/ebusiness/pages/ws-gitb.aspx>

3 <https://www.oasis-open.org/committees/ubl>