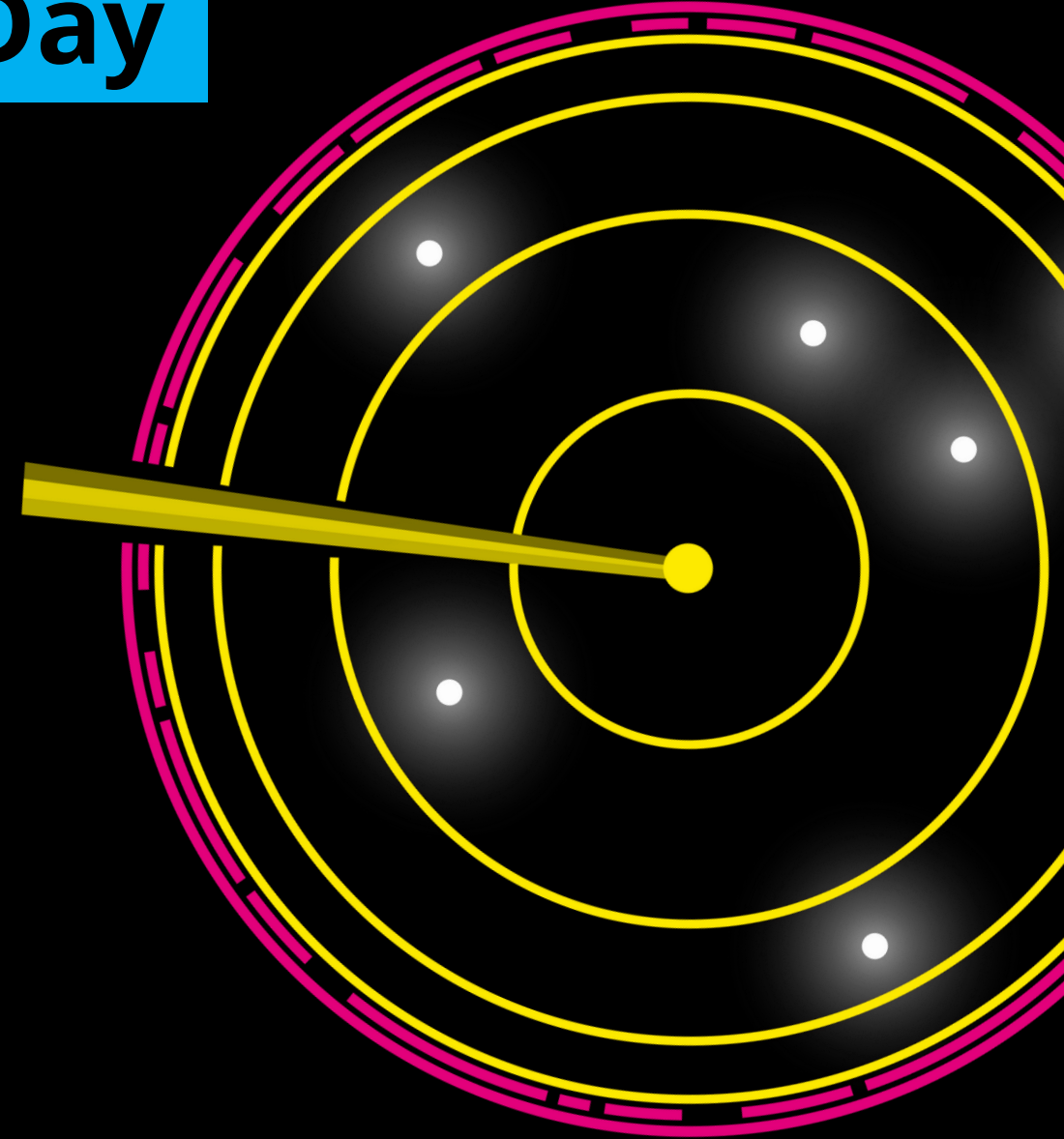


Data Spaces Discovery Day

October 19, 2023 | Vienna

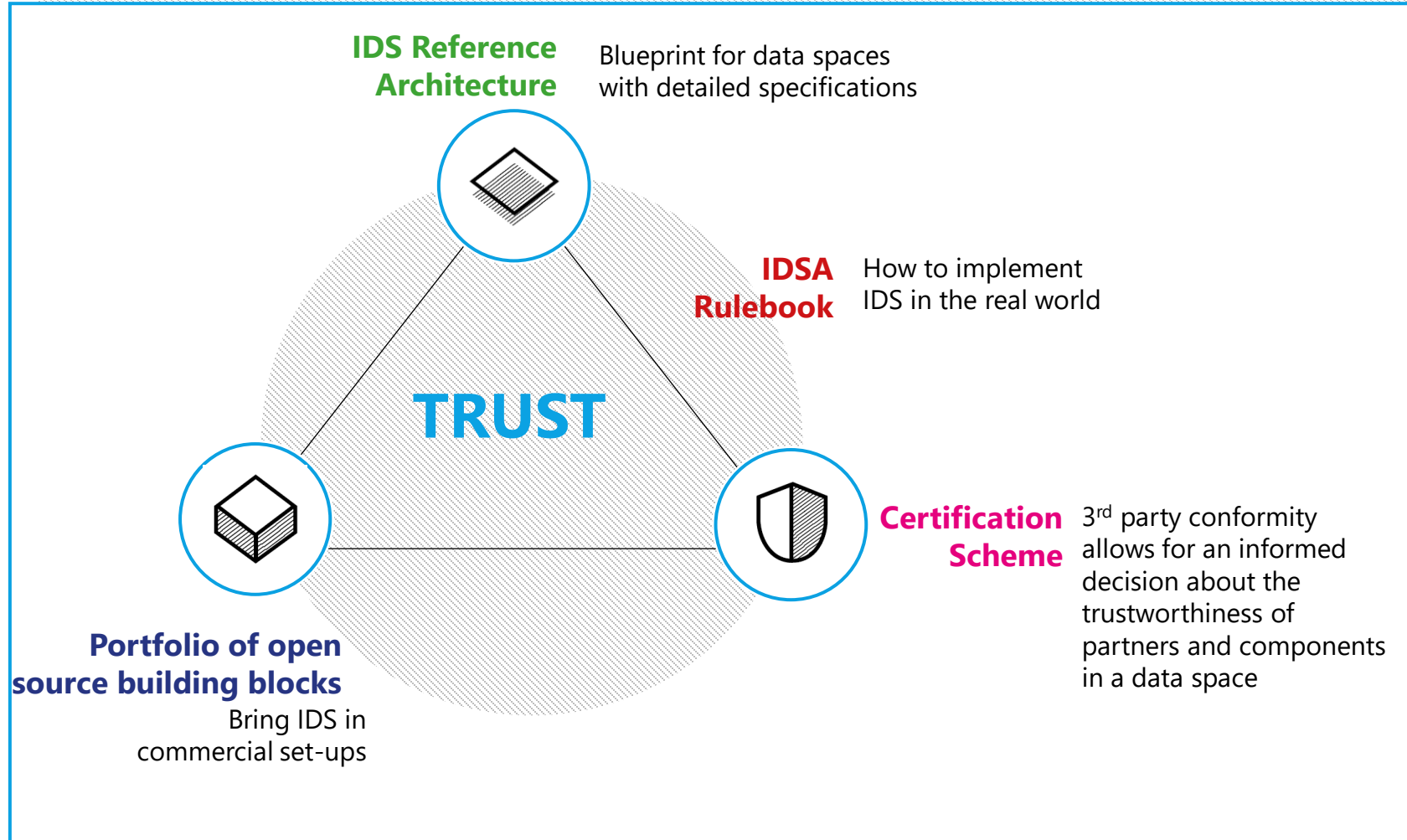
Trust is key in a data space:
IDS Certification

Sonia Jiménez
International Data Spaces Association



The magic triangle

IDSA as reliable base for data spaces



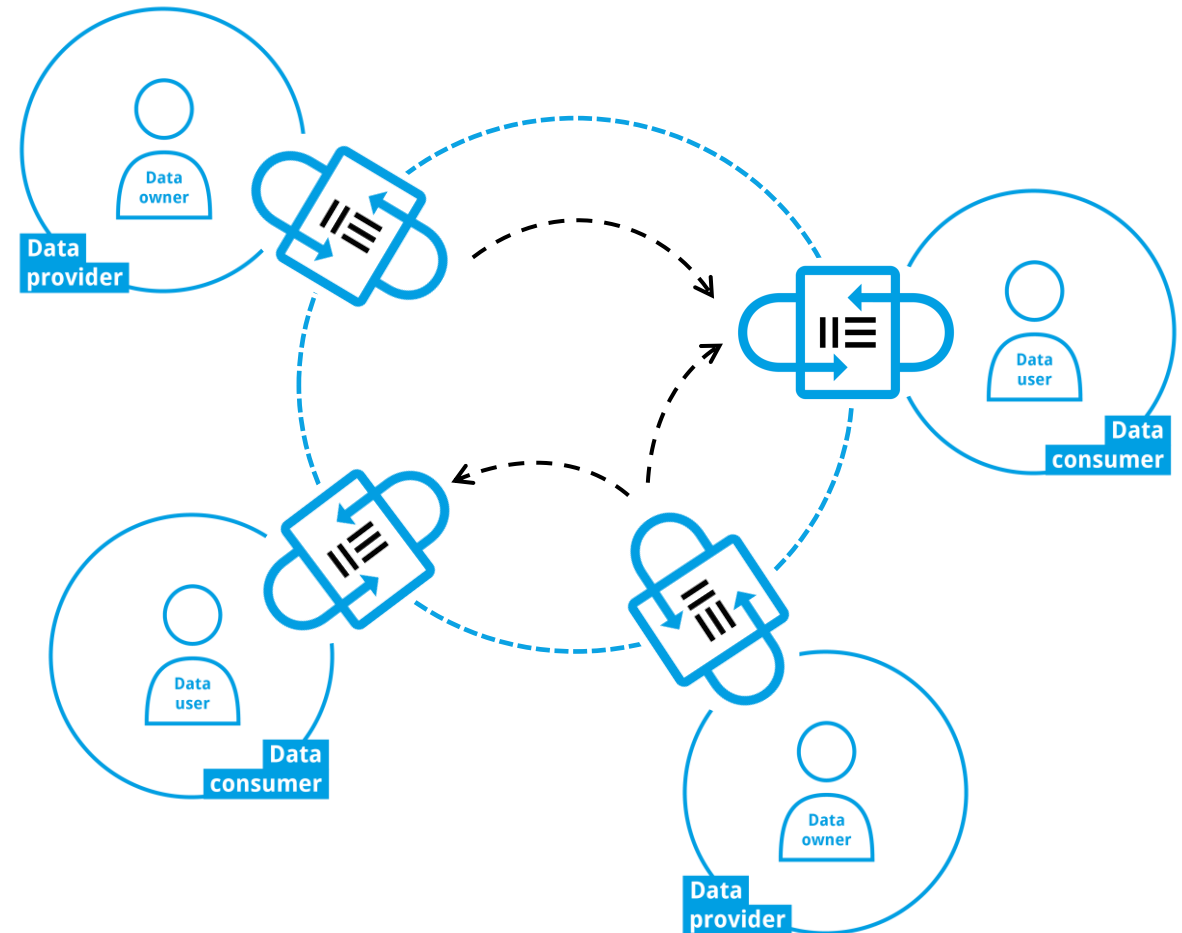
- » Guarantee **interoperability** in data spaces and between data spaces
- » Holistic **governance** to run data spaces
- » Reliable foundation for **commercial offerings** (including clear lifecycle, change management, versioning)
- » Ensure **trust** in data spaces

Trustworthy data sharing via data spaces

Where participants share one common trust framework



- » A **data space** is the sum of all data end points that are able to share data
- » Participants in a data space can trust each other as they adhere to a shared **trust framework**

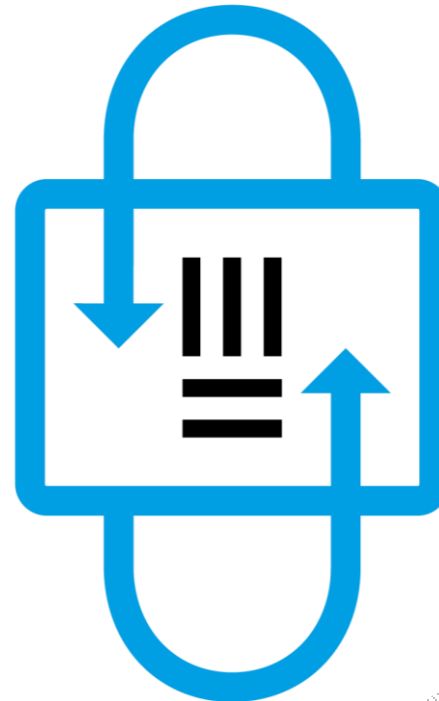


Creating a foundation of trust

The role of the IDS Connector in data sharing



- » This common trust framework specifies that everyone must use a designated data end point: the **IDS Connector**
- » To make sure that each IDS Connector behaves as it should, it is **certified against security criteria** and so is any participant in data sharing
- » On this **basis of trust** all participants can start sharing their valuable data





IDS Certification defines 156 security criteria

Combining the proven with the innovative

Meeting these criteria proves that data spaces are built the way they should be



Adopted security criteria

- » ISO/IEC 27001 – the international standard on how to manage information security
- » IEC 62443 – cybersecurity for operational technology in automation and control systems

Implemented security criteria

- » CSA Cloud Controls Matrix 3.01
- » C5 (Cloud Computing Compliance Criteria Catalogue) – the cloud computing IT-Security standard in Germany
 - » BSI IT base protection
 - » BSI SaaS security profiles

IDS-specific criteria

- » Data usage control
- » Communication security
- » Information model
- » Identity management
- » Broker and app store integration
- » Audit logging



IDS criteria catalogues

A glowing lightbulb with a dollar sign filament. The filament is shaped like a dollar sign (\$) and is illuminated with a bright blue light. The lightbulb is mounted on a wooden base. The background is dark, making the glowing filament stand out.

Make the grade!

How to do IDS Certification

Two complementary types of IDS Certification

Component Certification & Operational Environment Certification

IDS Component Certification

Here we evaluate and certify the core components of IDS.

Do they provide the required functionality and security?



IDS Operational Environment Certification

This evaluation provides an assessment of the trustworthiness of the physical environment, processes, and organizational rules.



Two assessments for component certification

Self-assessment Checklist Approach and external Concept Review



Component certification

Different companies and organizations have different data sharing needs, timelines, and budgets.

For that reason, IDS Certification offers two types of assessments:

- the straightforward Assurance Level 1 Checklist Approach
- and the more comprehensive Assurance Level 2 Concept Review

Assurance Level 1 (Checklist Approach)

- » Checklist self-assessment and automated interoperability testing
- » Data space interoperability

Assurance Level 2 (Concept Review)

- » External concept review, including functional and security testing

Assurance level 1: Checklist Approach

Fill in the IDS questionnaire on the IDS certification portal

Self-assessment certification

- » is a simple and easy-to-use way to achieve IDS certification
- » reflects a proven simplified approach to the IDS certification

The IDS certification portal

- » Gives access to questionnaire
- » Is an upload platform for log files from automated testing

The screenshot displays the 'IDS Certification Questionnaire for the Checklist Approach' interface. At the top, it features the International Data Spaces Association logo and the title. Below the title, a section titled 'Application Process' provides instructions: 'Please answer all the following questions. There are approximately 200 questions that you need to answer. They are divided into chapters. Make sure you answer all questions. Most of them have multiple choice answers to choose from plus a handful of free text answers that you must fill out yourself. There is no time limit for answering the questions. You will be able to save your progress at any time and return to finish the questionnaire later if you wish.' A progress bar shows five steps: 1. Answer questionnaire (highlighted), 2. Check your answers, 3. Send the questionnaire, 4. Questionnaire review, and 5. Certification. Below this, the 'Answer questionnaire' section is shown with a '0% Completed' indicator. The main content area is split into two columns. The left column, 'Choose the chapter', lists 'IEC 62443 - Identification and authentication control' with an 'Upload Log File' option. The right column, 'IEC 62443 - Identification and authentication control', contains two questions: 'Does your component provide the capability to identify and authenticate human users?' and 'Does your component provide the capability to identify and authenticate itself with any other IDS component (internal)?'. Each question has radio buttons for 'Yes' and 'No', and 'Save', 'Validate', and 'Edit' buttons.

Assurance level 2: Concept Review

Third-party evaluation of IDS components



The evaluation for the IDS certification assurance level 2 is performed by independent third parties, the **IDS evaluation facilities**

Receiving the third-party IDS certificate demonstrates:

- » comprehensive reviews and testing
- » independent validation
- » credibility by data sharing partners

All IDS evaluation facilities must go through an extensive approval process for added security.



Begoña Laibarra
Director of SQS

blaibarra@sqes.es

**More evaluation
facilities to come**

Self-assessment for the operational environment



One type of assessment for the IDS Operational Environment Certification

Operational Environment Certification

The Self-assessment Certification of the operational environment covers basic requirements for taking part in IDS.

This allows smaller companies to clear the first hurdle to IDS Certification and try out data spaces participation.

Assurance Level 1 (Self-assessment)

- » Entry into data sharing
- » Prepared by yourself
- » Focusses on basic but efficient, non-bureaucratic processes

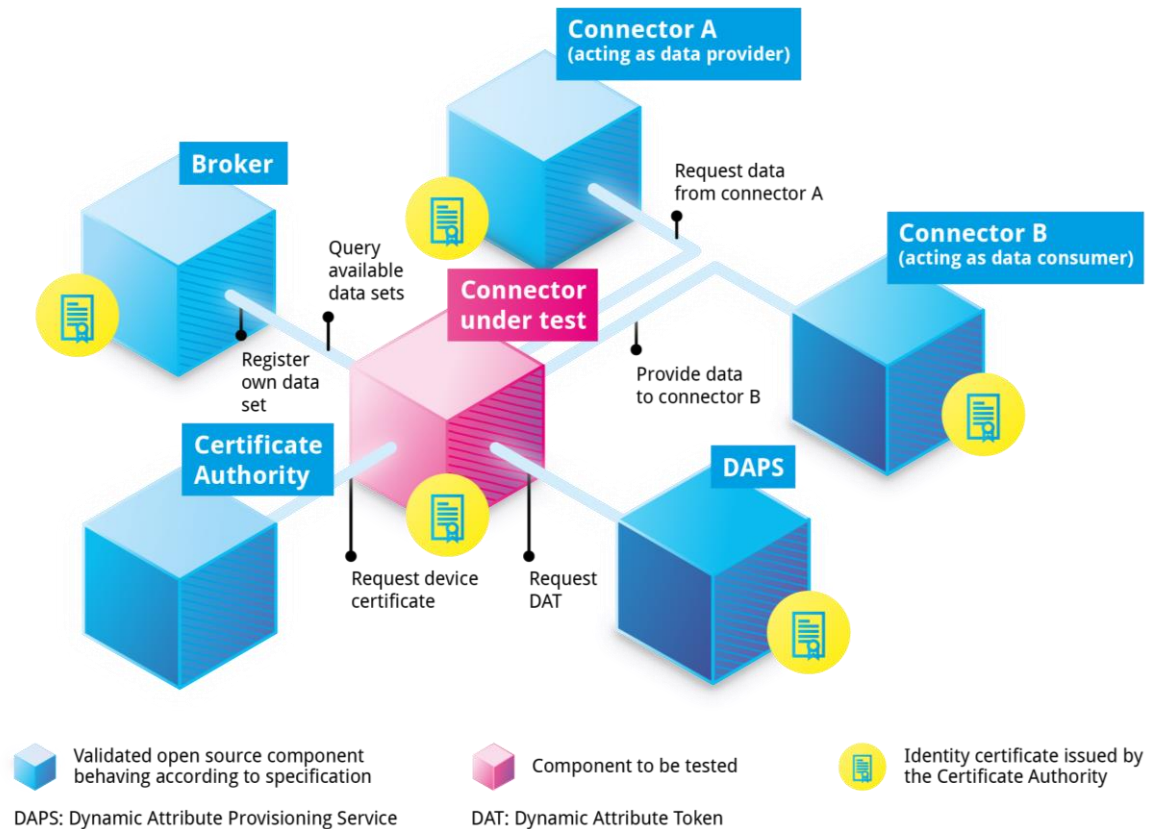
Preparation: testing

Test your IDS Connector in the IDS Reference Testbed



The [IDS reference testbed](#) is an open-source setup with IDS components for testing IDS Connectors on their:

- » [interoperability](#) with IDS components
- » [compatibility](#) with the IDS reference architecture



[IDS reference testbed on GitHub](#)

IDS Certification

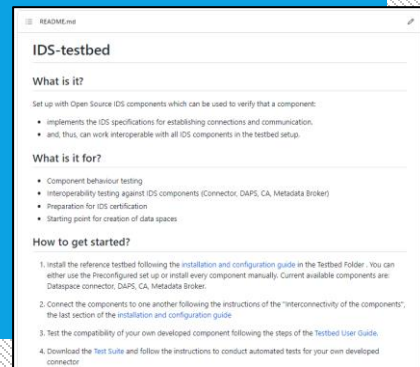
More information



IDSA homepage



IDS reference testbed repository on GitHub



IDS certification criteria catalogues for components



Framework for the IDS certification scheme



[*IDSA homepage*](#)

[*IDS reference testbed*](#)

[*Certification criteria*](#)

[*Certification scheme*](#)



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