

Template Workshop: Enhancing Data Collection & Reporting

DG RTD UNIT GH6 – *'Common knowledge and data management service'*

DG RTD UNIT H DEP.IT.002 – *'eGDR: eGrants Data and Results'*

20th June 2025

Table of contents

- Monitoring Obligations and Legal Basis
- Previous Limitations in Data Collection and Reporting
- Structured XML-Based Templates
- Results Templates: Introduction to the New Template
- Technical overview
- Business remarks
- Next Steps



Monitoring Obligations and Legal Basis

The Horizon Europe Regulation sets out a robust legal framework to ensure the **continuous, structured, and transparent monitoring** of the programme's implementation, including for European Partnerships.

- **Article 50** of the Regulation (EU) 2021/695 mandates the Commission to **systematically monitor implementation**, covering inputs, outputs, and impacts. It also requires that related data be made **publicly accessible via a single EU database**, supporting transparency and evidence-based oversight.
- **Annex III** establishes **specific monitoring and reporting obligations for European Partnerships**, ensuring that data is **comparable, timely, and aligned** with programme-wide requirements.
- **Annex V** establishes **Key Impact Pathways (KIPs)** framework for structuring and assessing the program's overall impact across scientific, economic, and societal dimensions.

Objectives:

- To ensure **transparency, accountability, and evidence-based policy-making**.
- To enable aggregated reporting across all instruments, including Partnerships (fully embedded in the corporate performance framework).



Previous Limitations in Data Collection and Reporting

Several challenges currently affect the capacity to gather complete and reliable data:

- A number of Partnerships do **not currently use eGrants**, the corporate reporting tool for Grants.
- There is **no centralised mechanism** for collecting data on **Cascade Funding** (also known as Financial Support to Third Parties, **FSTP**) --> **data is not directly integrated** into the eGrants Data and Results warehouse.
- **Lack of structured access to project-level outputs** (e.g. publications, patents, innovations), limiting the Commission's ability to assess the tangible impact of funded activities.

Outcome:

- Dispersed and uncoordinated data flows.
- Incomplete or inconsistent reporting across Partnerships.
- Obstacles to producing comprehensive programme-level analyses.



Structured XML-Based Templates

DG RTD has developed **structured templates** (based on XML technology) which are designed to capture data in a consistent, machine-readable format, enabling harmonised reporting across all European Partnerships and ensuring alignment with the corporate-level monitoring framework.

Key Advantages of the Template-Based Approach:


- ✅ **Legal Compliance:** Supports fulfilment of reporting obligations.
- ✅ **Harmonisation:** machine-readable, standardised format that ensures interoperability across systems and facilitates the consistent collection of data across Partnerships, enhancing transparency.
- ✅ **System Integration:** Enables alignment with the Commission's data architecture and analytics infrastructure, including integration into the eGrants Data and Results warehouse ensuring that Partnership results are fully visible within programme-level reporting.
- ✅ **Synchronisation:** dynamically update the information if the project parameters change (budget, termination, change of beneficiary etc), to ensure the information in the data bases is kept up to date.
- ✅ **Evidence-Based Policy Support:** Lays the foundation for data-driven evaluations, strategic planning, and timely feedback to policy, thereby reinforcing the credibility and relevance of HE implementation assessments.

Structured Data = smarter monitoring, deeper analysis, and stronger accountability.



Structured XML-Based Templates

Two templates have been shared to date, each aligned with key phases of the project lifecycle (September 2023)

 **Proposal Template** designed to capture structured data **at the proposal stage**, this template includes key data as:

- General project metadata (title, acronym, duration, etc.).
- Applicant profiles and organisational types.

 **Funded Project** focused on **implementation monitoring**, this template includes key data as:

- Grant agreement and consortium information.
- Funding allocation (including cascade funding, where applicable).

 **Supporting Material** (available on ERA-LEARN website)

[Template Submission and Integration of Partnerships Data](#): describes the reception mechanism and further steps for the onboarding of the data to be provided by the co-funded and institutionalized partnerships to RTD.

Results Templates: Introduction to the New Template

Third structured template is currently under development. This new Results Template is designed to systematically collect information on **project-level outputs, outcomes, and impact**.

As with the project and proposal templates, the **results template** is also aligned with the data requirements defined in the official Horizon Europe [periodic reporting template](#).

Key Data Elements Include (among others):

- Publications.
- Datasets.
- IPRs.
- Dissemination and Communications activities.
- Researchers involved in the project.

Why It Matters:

- **Impacts:** enabled by the outcomes of the project.
- **Policy Contributions:** input to EU and national policymaking and regulatory processes.
- **Innovation Maturity:** tracking of Technology Readiness Level (TRL) progression and market deployment potential.



Results Templates: Sample of Structure

C	D	E	F
Section Name <input type="text"/>	Element Name BO <input type="text"/>	Set of Values constraints <input type="text"/>	MANDATOR <input type="text"/> FIELDS
Researchers involved in the project	Beneficiary No	<i>Example</i>	Y
Researchers involved in the project	Pic		Y
Researchers involved in the project	First Name		Y
Researchers involved in the project	Surname		Y
Researchers involved in the project	Gender		Y
Researchers involved in the project	Nationality		Y
Researchers involved in the project	Email		Y
Researchers involved in the project	Career stage		Y

Technical overview

Glossary of terms and acronyms



XML (eXtensible Markup Language)

A structured format used to store and transport data. Commonly used for data exchange between systems.



XSD (XML Schema Definition)

A set of rules that define the structure and content of an XML file. Used for validation.



SFTP (Secure File Transfer Protocol)

A secure way of transferring files over a network. It encrypts both commands and data.

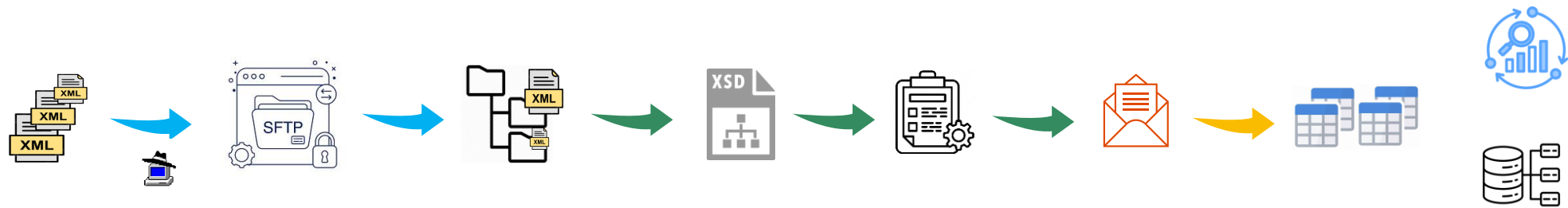


ppk (PuTTY Private Key)

A file format used for secure authentication to SFTP servers. Unique to each partner.

Technical overview

File upload, validation and integration



File Upload via SFTP

- Partners upload XML files to secure SFTP folders.
- Authentication via personal .ppk keys.

Initial File Handling

- Files are automatically downloaded.
- Naming conventions are validated.

Schema Validation

- XMLs are validated against predefined XSD schemas.
- Ensures structural compliance.

Business Rules Validation

- Domain-specific checks on data content.
- Ensures logical consistency and accuracy.

Error Reporting

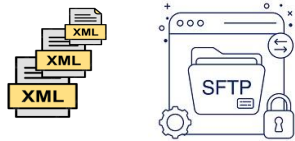
- Failures are logged and reported.
- Automated emails sent with validation reports.
- Recipients defined by partner-specific mailing lists

Data Integration & Enrichment

- Validated data is transformed and enriched.
- Loaded into the Internal Datamart for EU Consumption

Technical overview

Common validation issues



File-Level Errors

! Incorrect file naming convention

Does not match expected pattern for (e.g. PROP, PROJ)

! File not found in expected folder

Uploaded to the wrong SFTP path or incorrect folder structure

! File encoding issues

Non-UTF-8 encoding or malformed XML characters



Schema (XSD) Validation Errors

✗ Missing mandatory elements

Required XML tags are absent (e.g., <PIC Number> missing)

✗ Invalid data types

String provided where a number or date is expected

✗ Incorrect element order

XML nodes appear in a sequence that violates the XSD

✗ Incorrect value ranges

Negative values where only positives are allowed



Business Rule Validation Errors

⊘ Duplicate entries

Repeated PICs or record keys

⊘ Invalid date values

Future dates, malformed formats, or logical inconsistencies (e.g., end date before start date)

⊘ Missing required data

Mandatory business fields (e.g., PICs, amount) are empty

⊘ Unmapped reference data

Codes, PIC and/or values not found in lookup tables (e.g., unknown PIC)



Business remarks

Common 'definition' issues:

- **Participant EU Contribution:** This is the exact amount of EU funding formally allocated to each participant directly within the grant agreement.
- **Net EU Contribution:** This represents a participant's share of EU funding *minus* any amounts that are forwarded or assigned to their linked third parties, as per the Commission's official definitions.

The Beneficiary/Third-Party Relationship

Both "Net EU Contribution" and "EU Contribution (contractual)" are directly tied to the relationship between a Beneficiary and one or more Third Party:

- **Beneficiaries** are the entities that sign the grant agreement with the Commission and are formally assigned an EU Contribution.
- **Linked third parties**, conversely, do *not* sign the agreement and therefore have an official EU Contribution of zero.

Project EU Contribution should equal the sum of all Participant (*i.e.*, beneficiaries + third parties) NET EU Contributions, which should also equal the sum of all Participant EU Contributions without any unintended multiplications.

Project Number	Partner Type	Net EU Contribution	EU Contribution
		13 679 983	13 679 983
101058414	BENEFICIARY	13 198 891	13 679 983
101058414	THIRDPARTY	481 092	0
101058414	ASSOCIATED_PARTNER	0	0



Next Steps

Finalisation and Validation

Complete the technical development and validation of the Results Template, ensuring usability and compliance with Horizon Europe requirements.

Engagement on Technical and Procedural Aspects

- Identify any technical or procedural constraints encountered by Partnerships.
- Explore opportunities for alignment with existing internal systems and workflows.

Iterative Development and Testing

- Collect and integrate feedback from stakeholders.
- Pilot the Results Template in collaboration with selected Partnerships to test functionality and usability.

Ongoing Support and Dialogue

Maintain an open-door policy to provide guidance, address challenges, and ensure shared understanding throughout the process.

Reach us

RTD-CORDA-SUPPORT@ec.europa.eu

RTD-EGDR-DATAIMPORT@ec.europa.eu





Thank you



© European Union 2025

Unless otherwise noted the reuse of this presentation is authorised under the [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/) license. For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective right holders.

