

Requirements for Completion of Initialisation Phase

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Version 2, March 2025

1. Purpose

This document serves as a **common framework** for the Initialisation phase of your basic service. This version 2 of the document applies to all basic services and their proposals as of April 2025, older basic services follow the instructions in the first version of the document (<https://zenodo.org/records/11519611>).

There are **seven mandatory deliverables** from Task Area 1 (Base4NFDI), three of them with regard to your documentation of the Initialisation phase. All deliverables and their results must be described in the Base4NFDI project management software OpenProject. Utilise the support offered by the Base4NFDI team (TA1, Service Stewards) if you encounter any difficulties. Also remember that you might have to prepare your next basic service **proposal for the Integration phase** early during the Initialisation phase, for which you need an up-to-date state of these deliverables.

2. Mandatory Deliverables from Task Area 1 (Base4NFDI)

The following descriptions of the first 5 deliverables are to be understood as suggestions in the form of a guide and not as tasks to be (fully) completed. Make sure that you have taken all these mandatory deliverables and milestones from Task Area 1 (Base4NFDI) into account, when writing your proposal work plan, and map your own deliverables and milestones to the mandatory deliverables from Task Area 1.

Deliverable D.TA1.1 Requirements Analysis

- Assess the needs of your community in a two-part **in-depth analysis**:
 - a) What needs are being met by existing services in relation to the proposed basic service (with regard to relevant consortia's working group)? What are the expectations of a basic service? Do already existing specific services need extra support for their users, that can be provided by a basic service?
Present the results to the NFDI section(s) involved (and their corresponding working groups, if applicable). What issues have the sections/working groups already identified?
 - b) Bring together all the services in the consortia regarding this topic and explore possible commonalities (in addition to the issues already

identified).

Be aware of dependencies between services (user services, basic services), of inconsistencies and blind spots and how this can lead to problems for a basic service. Will a basic service work well within the overall architecture of a consortium?

- Identify **contacts in the consortia** on this issue and, if possible, work together to collect information. Consider both qualitative and quantitative methods. Share your findings.
 - Where appropriate, use surveys (TA4 has already provided you with feedback from the consortia), interviews and/or workshops to gather information and ask Section Liaison Officers, Section Co-Spokespersons or Service Stewards about surveys/interviews/workshops that have already taken place. Document your process and/or methodology.
 - Create user stories, epics and/or personas as appropriate.
- **TA1 team** can support this step (requirements analysis and/or its documentation) and the **Service Stewards** can assist by liaising with the consortia and their user bases, and by gathering the needs of the sections and the working groups.
 - TA1 team can support the requirements analysis by offering events (e.g. persona workshops or community meetings).
- Complete your analysis and its documentation (summary of findings and methodology used) within **3 months** of the start date.
 - We encourage you to openly publish your survey/interview data and workshop results (e.g. on [Zenodo](#)).

Deliverable D.TA1.2 Evaluation of Existing Software and Services

- Depending on what type of service you develop, collect possible candidates for your basic service, regarding **existing software solutions, tools, methods and services** available on the market.
 - What software/services on this topic already exist within the consortia? Do they need a basic service? (include TA4 feedback)
- Compare the collected solutions with the requirements (see previous objective) using appropriate **evaluation criteria**.
 - Which solutions meet the requirements and to what extent?
- The aim of the comparison is to **identify solutions** for a stable, secure, sustainable and sufficiently scalable basic service.
 - Open licenses are mandatory to ensure transparency and to avoid lock-in scenarios (for services and technologies used).
 - A typical scenario could be to take an existing domain-specific service or a basic service deployed in one or just a few consortia and to promote it as a new basic service for NFDI.
 - Note that in the Initialisation phase, the compliance with a [Technical Readiness Level](#) of TRL 3-4 (minimum) for developed software is mandatory.
- The **TA1 team** can support this step (service and software evaluation and/or its documentation) with a service/software evaluation plan to guide you through the

process, and by monitoring the service landscape and ensuring that there are no blind spots.

Service Stewards can assist you, in particular by identifying current technology trends within the consortia and their user bases.

- Complete your evaluation and its documentation (summary of findings) within **6 months** of the start date .

Deliverable D.TA1.3 Service Design

- Based on the results of the software and service evaluation (see previous objective), **select your service design** (including tools, frameworks, methods and technologies).
 - The service design includes meeting and, if necessary, improving the requirements for the basic services.
 - The service design also includes the architecture of the basic service (technology, APIs, user experience, training, helpdesk, etc., depending on your type of service)
 - It also includes its connection/interaction with the other basic services and services in the consortia (interfaces, workflows, organisational).
- During development and selection of your components, also keep the **accessibility**¹, **information security**, and **scalability** of your service in mind right from the start.
- The **TA1 team** can support this step (service design and/or its documentation) to guide you through the process, and by monitoring the service landscape and ensuring that there are no blind spots.
Service Stewards can assist you, in particular by identifying current technology trends within the consortia and their user bases.
- Complete your service design and its documentation within **6 months** of the start date.

Deliverable D.TA1.4 Service Development as a Prototype

- Service development is mostly the **development of new software, the enhancement and adaptation of existing software solutions** and/or the **development of support offerings** and **training materials**, i.e. the realisation of your service components as described in D.TA1.3. They should be extended within the NFDI for widest possible use by the services of the consortia (including e.g. user group-specific adaptations, templates, customisation, metadata integration).
 - If new software is developed, TA1 can support technical design decisions in the development of digital services.
 - For the development of training materials, the **Base4NFDI Training Task Force** can support you.

¹ See also [Barrierefreiheitsstärkungsgesetz](#), in effect from June 2025.

- All output of a service should be published as open as possible:
 - **Software** your service is developing must be **licensed** under an open and ideally permissive license, like [MIT](#), [Apache 2.0](#) or the [BSD 3-clause license](#)². The storage of your software in a standardised and accessible repository³ is highly recommended.
 - **Other outputs** of a service like guidances and training materials must be **licensed** conformant with the principles set forth in the [Open Definition](#), e.g. with the [Creative Commons](#) license [CC-BY 4.0](#). The storage of your output in a standardised and accessible repository is also highly appreciated.
- The **TA1 team** can support the development of the service by offering events if deemed necessary (e.g. workshops, hackathons, or community meetings, focusing on quality, sustainability and others).
- The basic service in the Initialisation phase should be **provided as a prototype**. Note that if you develop software, then for completion of the Initialisation phase the prototype has to be compliant with a [Technical Readiness Level](#) of TRL 5-6 (minimum).

Deliverable D.TA1.5 Piloting and Testing

- At the end of Initialisation, your service should be integrated into two or three consortia, as a **proof of concept** and **tested with a selected (small) group of users** (end-users or service providers).
- The aim of the piloting and testing phase is to **demonstrate the general applicability** of the basic service and to get an initial **response from the community** (in-depth user testing is reserved for the Integration phase).
 - Piloting and user testing should be standardised and harmonised.
 - Note that Task Area 4 can provide training for user testing as early as appropriate.
- It goes along with the development of guidelines, templates and training materials depending on the target audience.
- The **TA1 team** can support piloting and testing by providing a toolkit for harmonising piloting and testing strategies.
For onboarding pilot users or administrators and community IT staff, training material will be required. The **Base4NFDI Training Task Force** can support you in identifying target groups, learning goals and continuously developing training materials.
Service Stewards can assist you by establishing links with the consortia and their user bases.
 - The TA1 team can also support piloting and testing by offering events (e.g. workshops or community meetings). Events at this stage can encourage

² The [Licensing Assistant from the European Commission](#) can help you to find an appropriate license. We recommend setting the filters 'permissive' and 'strong community'.

³ In [re3data](#) you can search for repositories for all types of output (e.g. software, data and documents).

dialogue between existing and new service providers and promote service dissemination.

Deliverable D.TA1.6 Presentation to the Section and as a Short Overview

- With the end of the initialisation phase, you will give a **presentation of your results to the NFDI section** that initiated your service, which is mandatory to complete your Initialisation Phase.
- Additionally, you submit a **short report on the results** of your Basic Service (1 page), following the [Guidelines for a Short Overview of a Basic Service at the End of the Initialisation Phase](#). This short report will be published as a news item on the Base4NFDI website. You can also choose to publish your results e.g. as a blog post on your website.
- Both items have to be completed no later than **6 weeks after the end of your Initialisation phase**.

Deliverable D.TA1.7 Participate in Base4NFDI outreach events

- Active participation with a **presentation** of the service
 - at the Base4NFDI User Conference
 - at the Base4NFDI Services Roadshow
 - and as a [NFDI talk](#)
 is mandatory during the Initialisation phase.

3. Documentation

The completion of all deliverables will be tracked **in the project management tool** (OpenProject). You can provide both your technical or user documentation (the publicly available part of your service documentation) and any internal/confidential parts; as a link or as text, as you see fit. **An export of your documentation in OpenProject is then sufficient as a report.**

For the following deliverables a report has to be provided:

- Documentation of requirements analysis (D.TA1.1)
- Documentation of software or service evaluation (D.TA1.2)
- Documentation of service design (D.TA1.3)
- Short Overview of the results (D.TA1.6)

For a more exhaustive summary on this, please refer to the [HowTo: Reporting in Initialisation Phase](#). In any case, the final report should be submitted to the Base4NFDI office and TA3 no later than **6 weeks after the end of the Initialisation phase**.

If you publish your reports, please follow the [Signalisation instructions Base4NFDI](#) and acknowledge both Base4NFDI and the funder DFG together with the funding number for basic services 521466146. It is also possible to use the Base4NFDI and DFG logos, which are available for download on this [website](#).

Documentation of the Deliverables

Requirements Analysis (D.TA1.1)

- Provide a summary of requirements from the consortia for a basic service on your specific topic.
- Provide an overview of the expectations formulated by the consortia in the relevant working group on the topic and which part of these expectations the proposed solution fulfils.
 - If applicable, also indicate the methodology used (e.g. survey).
- Define the target group(s) for the service and their use cases. Describe the benefits for each target group.
- The report for this deliverable is due **3 months** after the start date.

Evaluation of Existing Software or Services (D.TA1.2)

- Provide an overview of the evaluation of the different aspects (e.g. functionality, performance, security, usability).
- The report for this deliverable is due **6 months** after the start date.

Service Design (D.TA1.3)

- Document the tools, frameworks, methods and technologies used for the basic service.
 - Explain the rationale for the choice of technology stack/methods/tools.
 - Where appropriate, document the user interface and/or APIs depending on the target audience.
- Describe how the basic service is integrated into the NFDI service landscape.
- The report for this deliverable is due **6 months** after the start date.
 - As the documentation of the service design could be a starting point for the technical and user documentation of the basic service when it is completed and running, you should already consider a suitable way to host structured, versioned and collaboratively maintained service documentation (e.g. markdown based documentation hosted on GitHub, with a static site generator such as MkDocs or Hugo). Note: This refers to the publicly available part of your service documentation. See also the [Base4NFDI Service Documentation Guide](#).

Short Overview (D.TA1.6)

At the end of the Initialisation phase, a short overview of the service and the results of the Initialisation phase should be written. The text should include a brief overview of the service:

- What can the service be used for?
- Who can use it?
- How can it be used?

This short report will be published as a news item on the Base4NFDI website. Alternatively, you can choose your own way of publishing a summary of your basic service, e.g. as PID4NFDI did with their [blog post](#). For more information see the [Guidelines for a Short Overview of a Basic Service at the End of the Initialisation Phase](#).

4. TA1 Deliverables for each Basic Service in Initialisation Phase

Milestone	Deliverable	Type	Description	Due after start
	D.TA1.1	Report	Documentation of requirements analysis	3M
	D.TA1.2	Report	Documentation of evaluation of existing software and services	6M
	D.TA1.3	Report	Documentation of service design	6M
	D.TA1.4	Service	Service prototype	12M
	D.TA1.5	Service	Service piloting and user testing	12M
M.TA1.1			Service ready for integration	12M
	D.TA1.6	Presentation and Report	Presentation and short overview about the outcomes of the Initialisation Phase	12M
	D.TA1.7	Presentation	Talks at Base4NFDI User Conference, the Services Roadshow and an NFDI presentation	12M