DDI Scientific Work Plan 2021 – 2023
Updated 28 February 2023

Preface

The Scientific Board of the DDI Alliance was set up as a result of a change in the Bylaws[1], approved by the membership in 2020. This emerged from the prior recommendation of a temporary working group set up to scope out the creation of a larger and more proactive entity within the DDI Alliance, which would have a clearer administrative and oversight role for other groups within the DDI Alliance. The first members of the new Scientific Board were elected in 2020. Normally, Board members serve four year-year terms. Initially however, at the inception of the Scientific Board, half of its members are serving 4-year terms (January 2021 – December 2024 in this round) while the remaining half serve 2-year terms.   This arrangement allows the terms of different Board members to be overlapping. With elections taking place every 2 years, the composition of the Scientific Board can be rotated by up to fifty percent following an election. The Scientific Board also elects a chair and vice-chair from within its membership and these positions each serve two-year terms.[2]

The first DDI Scientific Plan originally covered a 2-year period, from January 2021 to December 2022 inclusive. The Scientific Board decided, following a meeting in Chur in September 2022 to (i) update the current Scientific Plan to extend its coverage to include activities in 2023 and (ii) to prepare a new 2024 Scientific Plan, which will be recommended for adoption at the Scientific Community meeting in June 2023, following a planning round in Spring 2023. The updated Scientific Plan for 2021-2023 focuses on the need for the Board to solidify its internal processes as well as providing oversight to the on-going scientific work of the DDI Alliance. This will also encompass clarifying relationships with the Executive Board and the Scientific Board's relationship to the Technical Committee and to other Working Groups of the Scientific Board.

---

[1] https://ddialliance.org/sites/default/files/DDIBylaws_20201031.pdf
[2] Ingo Barkow and Hilde Orten 21-22; Hilde Orten and Darren Bell 23-24.

The Updated Scientific Work Plan 2021-2023 is divided into four sections:

I.   Proceedings and Workflow of the new Scientific Board internally and externally
II.   Reachable Short-Term Goals for 2021-2023
III.   Preparation of issues to be covered within the next Scientific Plan from 2024
IV.   Long Term Vision for DDI products and processes

Sections I and II cover the actual work plan for 2021-2023: they contain goals which should be reachable within this timeframe. Section III contains goals we consider to be viable candidates for the next Scientific Plan, taking effect from the beginning of 2024. The purpose of this section is to identify areas for preparation and planning for future work. Section IV contains longer-term goals for DDI products, which could feasibly be achieved in time frames of three to five years. The current Scientific Board will not be able to initiate those in the near term, but provides this information to provide additional context for current activities and to clarify longer term goals.

This iteration of the Scientific Work Plan incorporates large parts of the DDI Alliance Strategic Plan as it existed at the time this document was initially created. The Scientific Board accepted the Strategic Plan in its general outline. The internal planning discussions of the Scientific Board as well as the work plans submitted by the different Working Groups fit within the Strategic Plan. In the future, the scientific section of the Strategic Plan should arise out of the long-term goals of the Scientific Plan as reviewed by the Scientific Representatives and approved by the membership of the DDI Alliance.

I.   Proceedings and Workflow of the new Scientific Board internally and externally

The Scientific Board is a relatively new entity, and has started work on clarifying its roles, responsibilities and procedures. Similarly, work is ongoing to clarify the internal roles, processes, and operating rules, as well as establishing relations with other existing groups. These are now specified in an SB Operational Guidelines which will be reviewed periodically - and modified as appropriate - to meet changes in the operating environment. The SB procedures document now serves as a set of clear guidelines for the operations of the Scientific Board.

In addition, the Scientific Board is working with other parts of the DDI Alliance to clarify the following processes:
1. The role of the Scientific Board in the review of standards
2. The role of the Scientific Board in the review of technical documents.

This will lead to a more mature version of the Standards Development and Review Process and Procedure document.

![DDI logo]

II.   Reachable Short-Term Goals for 2021-2023

These goals were assessed by the Scientific Board in February 2023 as having a realistic prospect of being achieved by the end of 2023. The Scientific Board is accountable for the achievement of these goals.

#	Goal	Status	Output	Collaborate With WG:
SB-1	Define first draft of a roadmap for portability between versions (i.e. how do we get to usable tools/information).	In progress ▾	1st Draft document for presenting options, transformation rules	TC; CDI
SB-2	Promote more collaboration between the Working Groups e.g. scheduling and promoting regular scientific community meetings. This action item has to be further developed as a medium- and long-term goal.	In progress ▾	Protocols (e.g. agenda, schedules) for periodic meetings.	ALL
SB-3	Plan the creation of a new software development group similar to the DDI Developers group in the past to promote DDI Tool development.	In progress ▾	Event and report	
SB-4	Promote the development of guidance for the community on which DDI specification and which parts of DDI are the appropriate solution for specific use cases. This action item has to be further developed as a medium- and long-term goal.	In progress ▾	Best/Recommended practice documents, training sessions	
SB-5	Further develop recommendations for resolution of DDI URNs to the physical location of DDI resources (identified by URLs).	In progress ▾	Policy on URNs by SB	TC
SB-6	Explore a base architecture for existing and growing DDI metadata repositories.	On Hold ▾	Document in preparation to refocus these activities.	TC
SB-7	Initiate establishment of organisation-level relationships with external standards bodies where needed/appropriate. This action item has to be further developed as a medium- and long-term goal.	In progress ▾	Definition of representatives and description of their roles/ responsibilities per organisation.	

#	Goal	Status	Output	Collaborate With WG:
SB-8	Review DDI Alliance communication on e.g. web pages on current products, the learn pages and development products. *Delegated to responsible WGs – done from SB's point of view*	Completed ▾	New website content	
SB-9	Scope requirements for developing a formal product lifecycle policy e.g. an outline of preferred methodologies, approach to testing, actors etc.	In progress ▾	Plan for DDI product lifecycle policy.	TC
SB-10	Set up temporary WG to act as exploratory committee for DDI ISO certification	Not started ▾	WG set up and deliverables defined	
SB-11	Support and facilitate action items provided by the different working groups - see Appendix A. These action items are issues we evaluated to be short term enough to be covered within the next 1 year.	In progress ▾	Successful delivery of WG action items	ALL
SB-12	Identify candidates for advisory members to the Scientific Board	In progress ▾	Appointment of members to SB	

The following item has been removed from the original work plan:
- Plan a new laboratory environment to explore new features and technical platforms. *The Scientific Board has discussed this and do not think it is a priority or could feasibly be delivered in 2023.*

III.   Preparation of issues for the next Scientific Plan for 2024 onwards

The following section identifies action items to be discussed by the Scientific Board and to inform the preparation for the next Scientific Plan which will come into force in January 2024. Two items that were originally included in this section in the 2021-2 plan are underway and have been included in the section above as 12 and 13. The remaining items will need to be considered in relation to the upcoming DDI developer group pilot.

1. Support the further development of implementation guides to help software architects and developers i.e. recommending the appropriate subset of a specification. Ideally, implementation guidelines should include code snippets or examples and have a consistent presentation across the product line

2. Promote standardised query and exchange protocols which enable building repositories and reuse of DDI metadata in the web.

IV. Long Term Vision for DDI products and processes

The issues included in this paragraph reflect guidelines for addressing the development of long-term goals for the Scientific Board:

1. The Scientific Board will evaluate the development work undertaken in the past 7-10 years to both clearly document that work and determine what aspects should be incorporated into one or more products within the DDI Suite of Products.

2. The Scientific Board will establish guidelines and strategies to improve interoperability and modularity between the different versions.

3. The Scientific Board will monitor and provide support for the ongoing maintenance of the different products.

4. The Scientific Board will promote interoperability and collaboration with other metadata standards.

5. The Scientific Board will establish organisation-level relationships with external standards bodies where needed/appropriate.

6. The Scientific Board will identify, discuss and determine how to pursue opportunities for collaboration with other organisations with shared interests.

7. The Scientific Board will reignite the discussion of certifying DDI as an official ISO or similar standard.

8. The Scientific Board will regularly review and discuss how to respond to appropriate funding opportunities in the various geographies in which it has members.

Appendix A - Working Group Action Items

Working Group	#	Action Item
CDI	CD-1	Finalise the first production version of the Cross Domain Integration specification.
	CD-2	Collaborate on activities to implement and get feedback on the specification and the published syntax representations, in particular with data providers, RIs, EOSC and cross-domain case studies.
CV	CV-1	Create new/updated CV pages on the DDI Alliance site to accommodate products from the new pipeline that will synchronise the said pages with the CESSDA tool.
	CV-2	Continue to add Xpaths to the DDI classes referenced in the Usage section of our CVs
Glossary	GL-1	Create a first draft of a glossary of technical terms used within DDI standards and other products and submit to SB for approval. *The aim is to replace the current glossary on the DDI Alliance web site (https://ddialliance.org/resources/ddi-glossary). Many terms in the current glossary are not germane, wrongly defined, or lack adequate context. Definitions are not conveyed in a standard manner. The functionality of the pages are not fully utilised. The main objectives are to fix the problems listed.*
Paradata	PA-1	Finalise summary paper for group activities.
TC	TC-1	DDI-Codebook 2.6 publication
	TC-2	DDI-Lifecycle next version publication ● Migration to COGS for DDI-Lifecycle ● DDI-Lifecycle process workflow
	TC-3	DDI-CDI publication (final review if deemed necessary)
	TC-4	Review of standards development and review process & procedures cf. Section I

Working Group	#	Action Item
	TC-5	DDI Product Coverage and Comparison • Underlying database for comparison information • Conceptual level model of overall DDI coverage and relationship of products • Selected content area transformation information
	TC-6	Improvement of alignment of Lifecycle RDF implementation with DDI-CDI
	TC-7	Modification of DDI Alliance web pages (TC) • adding new features to product pages • Update of Learn/Resources and Getting Started page • Expansion of Overview page to include DDI product comparison and coverage information
	TC-8	Promote recently introduced technical DDI services (agency registry, RDF vocabularies, resolution system for controlled vocabularies) through e.g. webinars
	TC-9	Improved documentation of DDI Alliance Agency Registration instructions for users in conjunction with Training Group
Training	TR-1	Conduct six webinars, including an RDA webinar
	TR-2	Publish new slide decks to Zenodo including translations in French
	TR-3	Conduct EDDI 2023 training event and NADDI/US 2023 focused virtual training event
	TR-4	Continue outreach to Open Science Cloud/FAIR related organisations (RDA/CODATA)
	TR-5	DDI "Getting started" pages to be updated (may require a new sub-WG)

Working Group	#	Action Item
SDTL	SD-1	The WG will consider how the lessons learned from our work linking SDTL to ProvONE can be incorporated into the SDTL standard. Although SDTL can be serialised in RDF, we found that additional elements, such as identifiers for states of variables, greatly simplify SPARQL queries. We will consider how these elements can be incorporated into the SDTL standard. Although not an objective for 2023, the result of this work is likely to be SDTL version 2.
XKOS	XK-1	Organization of a public review and integration of the feedback provided.
	XK-2	Start work on XKOS version 2 based on the issues already collected and on a consultation of experts and users