

RDMTraining4NFDI Initialisation Phase – Final Report



2026-04-30
Sina Bock

Agenda overview

- 1. RDMTraining4NFDI in a nutshell**
2. Findings of the Initialisation Phase
3. How to use RDMTraining4NFDI?
4. Current state and outlook



The team behind RDMTraining4NFDI



Konrad Förstner, ZB MED



Mirjam Blümm, TH Köln



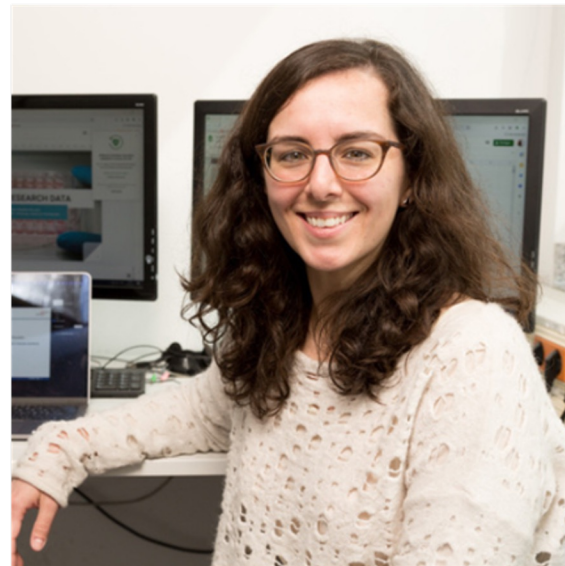
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Mareike Wohltmann, ZB MED



Sina Bock, TH Köln



Justine Vandendorpe, ZB MED



Marco Uebachs, TH Köln



Rabea Müller, ZB MED

The service stewards behind RDMTraining4NFDI



Lisa Schwier



Hannah Butz



Our findings build on prior work within the RDM community

- particularly concepts developed within the section EduTrain's working groups (WG) 2 - 4 and FDMentors' Train-the-Trainer concept for RDM
- while integrating established good practices and lessons learnt from related initiatives, e.g.:
 - state-level initiatives
 - data competence centres
 - metadata schemas for training materials from various stakeholders

- Long term goal: improving research data management (RDM) through standards in teaching, training and community support
- Objective: modular training materials, adaptable training formats, and didactical frameworks
- Objective: Certification process to support quality assurance and formally recognise acquired RDM competencies

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Research Data Management Training
for the German National Research
Data Infrastructure



Target Group

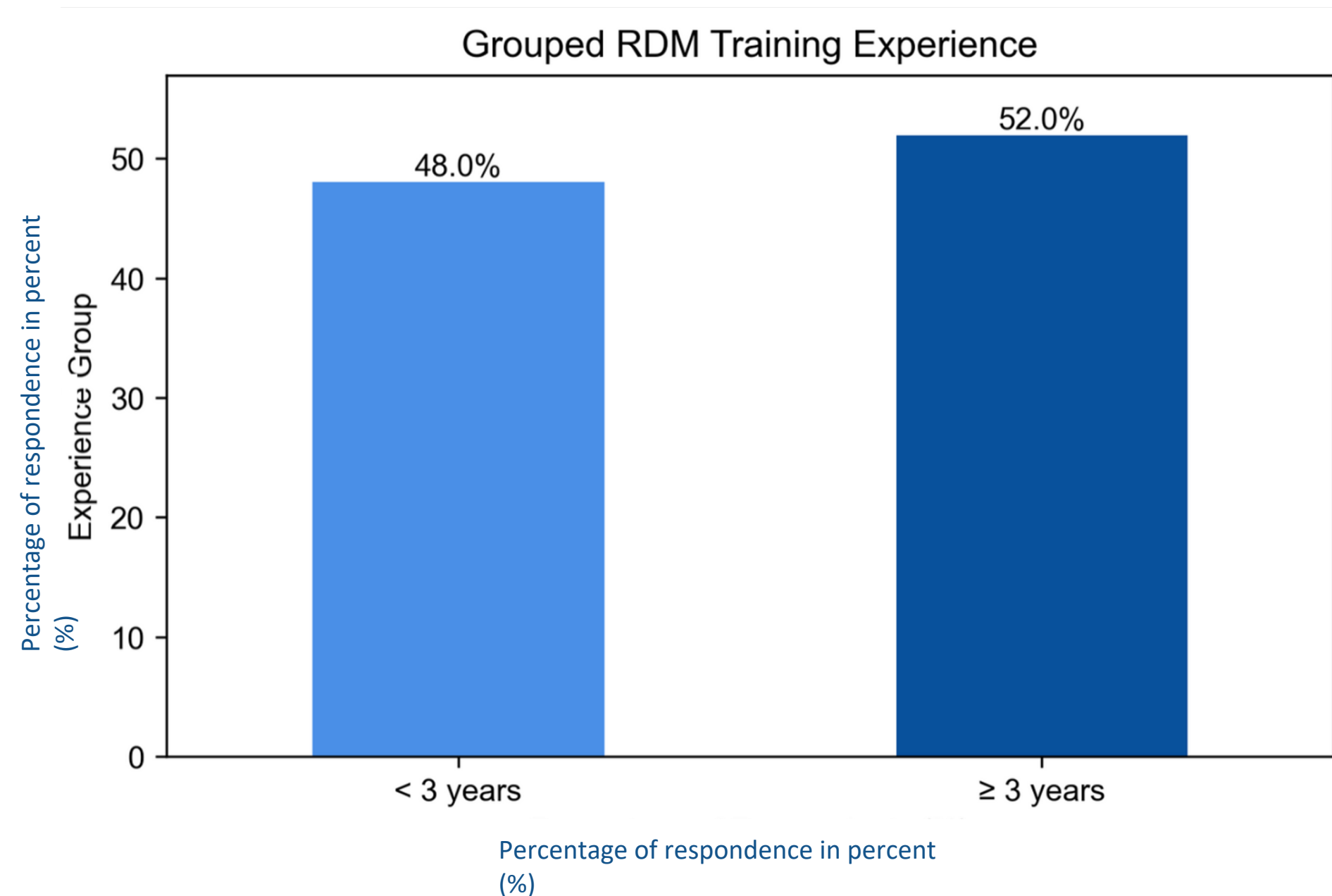
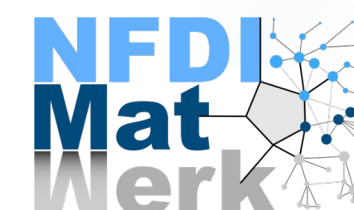
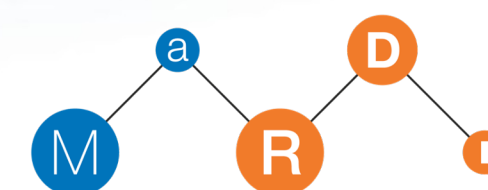


Fig. 1: Participants in the quantitative survey showed an approximately equal proportion of RDM training experience

- qualitative interviews with four use case consortia 03-04/2025
- quantitative survey with the entire RDM community (113 participants) 06-07/2025
- great effort to avoid duplicative structures and fostering synergies across the RDM landscape
 - 13 events within and outside the NFDI
 - 21 exchanges with NFDI consortia, data competence centres and state-level initiatives
 - 60+ consultation meetings.

Training Formats



Initial Training Plan

Training Formats

- ▶ One-month online workshop series
- ▶ One-week summer school
- ▶ Self-learning materials

Participants: representatives from four initial NFDI consortia

Adaptation During Implementation

Training Formats: combined formats into one hybrid learning pathway

Participants: opened to all NFDI consortia

Key Constraints & Feedback

- ▶ Limited project timeframe
- ▶ Preference for shorter in-person events
- ▶ Need for a more spread-out schedule
- ▶ Continuity between training elements

Format	Evaluation	Methods
In-person kick-off event	<ul style="list-style-type: none">● Content● Satisfaction	Survey
Online interactive workshop series	<ul style="list-style-type: none">● Content● Satisfaction● Knowledge and skills● Self-assurance	Survey
Self-learning modules	<ul style="list-style-type: none">● Didactics● Content	Semi-structured interviews
Asynchronous homework	<ul style="list-style-type: none">● Satisfaction	Discussion
Whole event	<ul style="list-style-type: none">● Effectiveness● Satisfaction	<ul style="list-style-type: none">● Semi-structured interviews● Focus group discussion

Onsite Kick-Off Event

- Preferred format with highest participant motivation
- Enables networking and professional exchange

Online Workshops

- Should be flexible and modular
- Benefit from interactive elements (e.g., hands-on exercises, collaborative pads, breakout rooms)

Self-Learning Formats

- Show lowest participation rates (time & self-organisation challenges)
- Lack of reusable self-learning materials – needs improvement

Overall Considerations

- Require a broader time frame
- Success depends on strong design and sound didactics

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Training Materials



Train-the-Trainer concept for RDM



Learning Objective Matrix for RDM (EduTrain WG 1)



Metadataschemata for RDM training materials

- (EduTrain WG4 and other stakeholders)
- DALIA Interchange Format (Version 1.4)
 - Dini/nestor sub-WG Training&Education



EduBricks concept (EduTrain WG3)



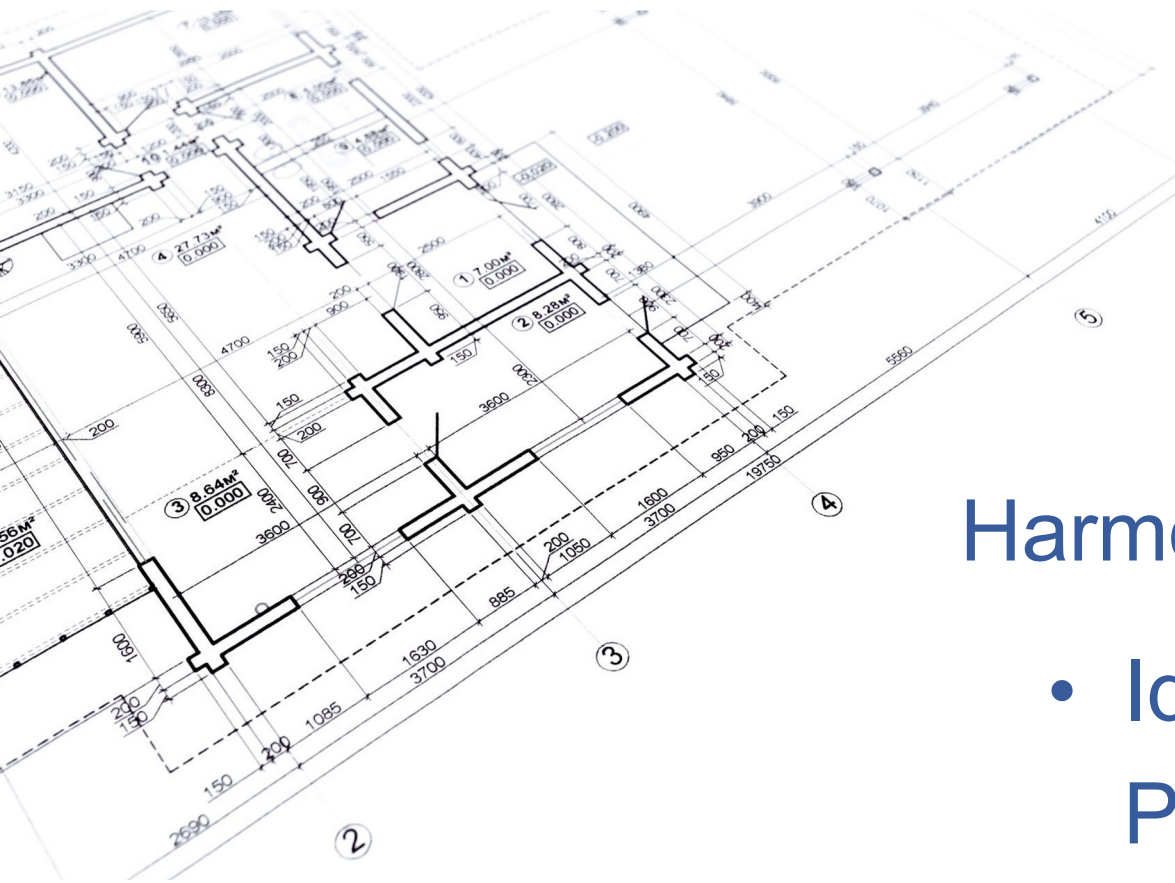
NFDI Consortia – training materials on RDM

- BERD@NFDI
- NFDI4Memory
- NFDI4Microbiota
- NFDI4Biodiversity



Alignment: Preliminary work of various stakeholders / initiatives within the RDM community





Harmonising RDM training efforts across the NFDI needs to:

- Identify quality criteria for evaluating OER (EduTrain WG2, PID4NFDI)
- Lower technical barriers and simplifying the (re-)development of modular learning materials and adaptable learning paths as living documents (EduTrain WG3, Jupyter4NFDI)
- Establish a terminology on RDM training (TS4NFDI)
- Constant integration and refinement (work of other stakeholders)

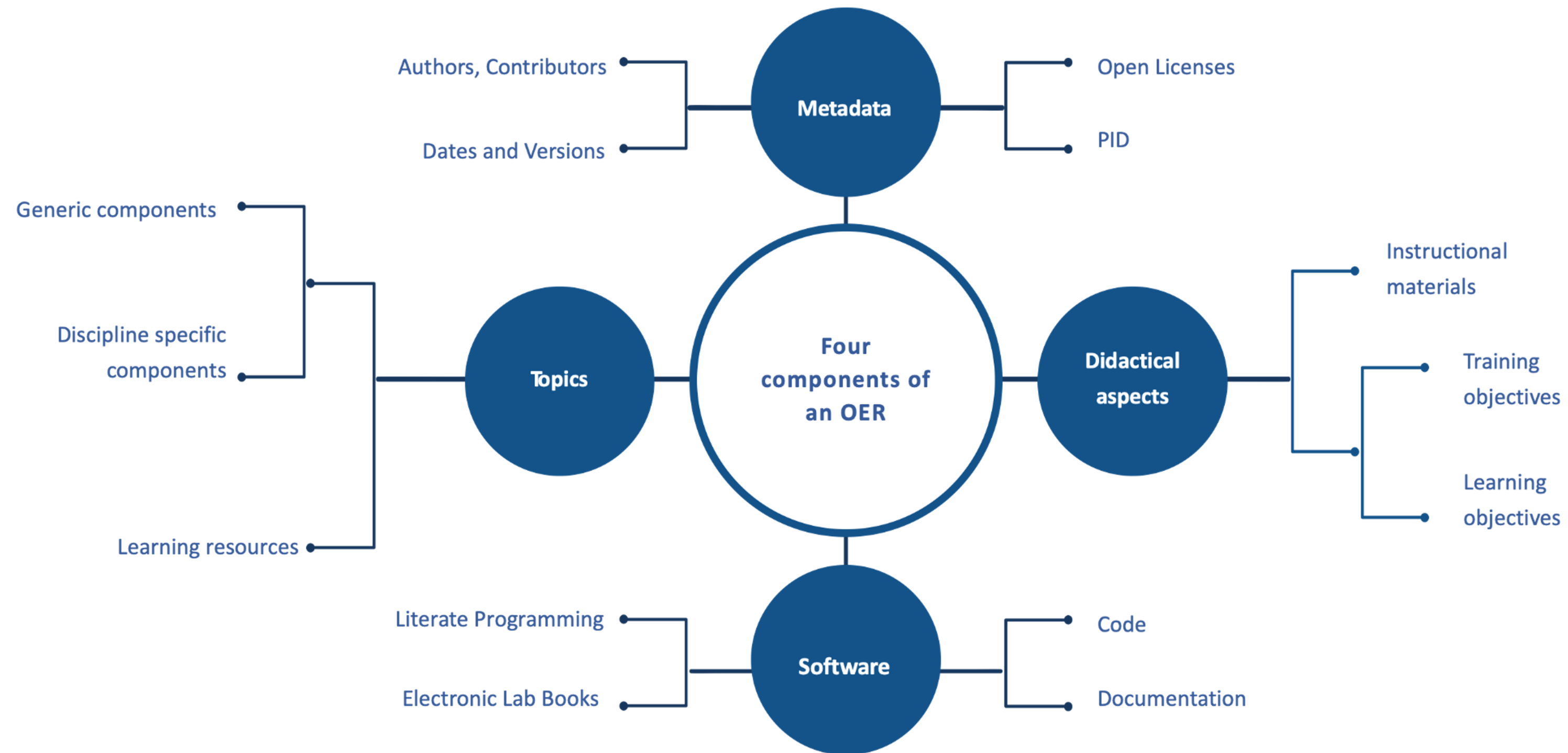


Fig. 2: Conceptual breakdown of the four components integral to the development and delivery of OER



Evaluation of Certification Formats & Types

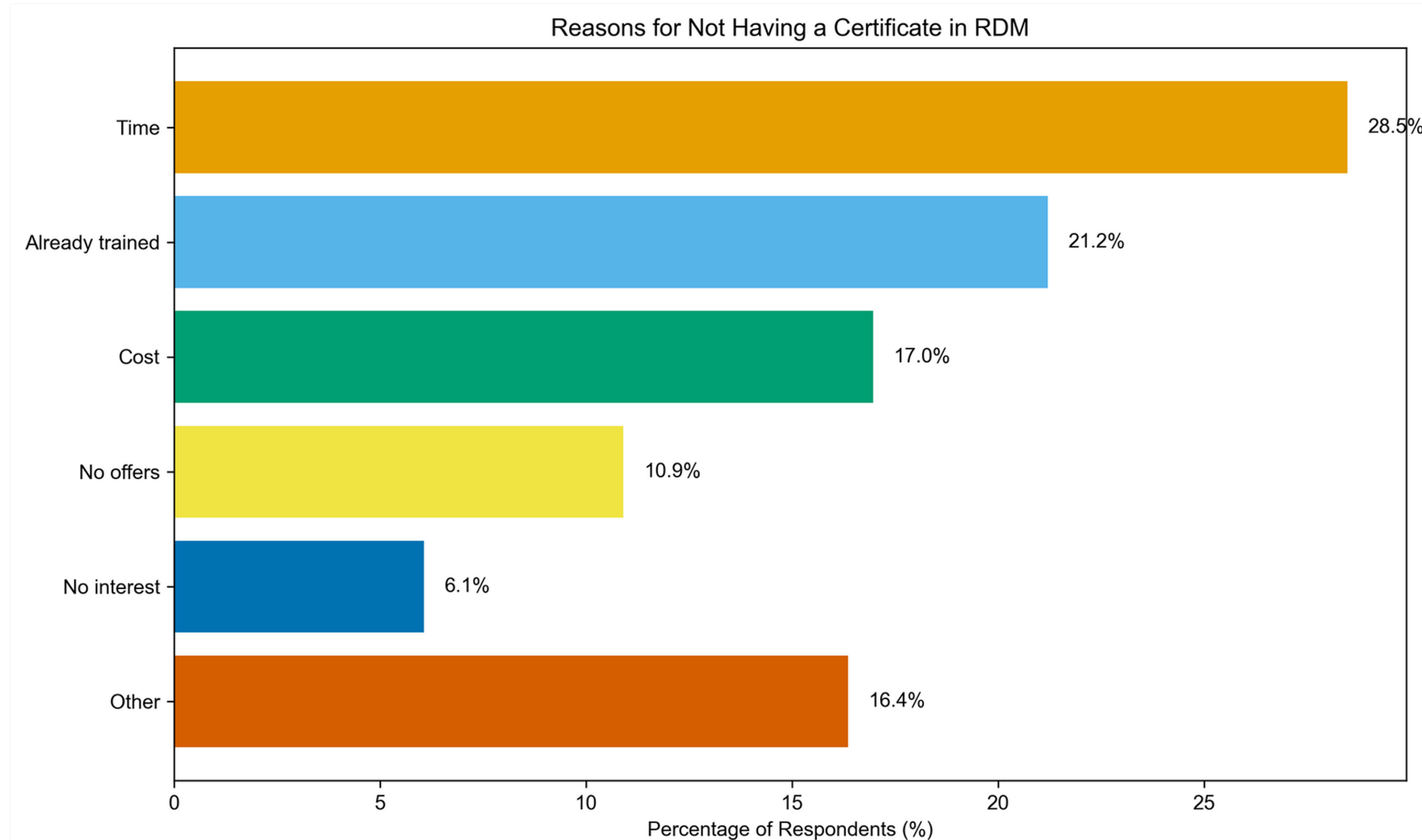


Fig. 3: Five key factors for not having a certificate in RDM reported by participants in the quantitative survey

Definition: In this context, certification refers to the formal attestation that an individual has acquired specific learning outcomes – namely knowledge, practical know-how, and demonstrable skills – through formal, non-formal, or informal learning settings.

Prerequisite: Any certification process depends on clearly defined quality criteria.

Objective: RDMTraining4NFDI aims to foster a **community of practices** to support the future rollout of RDM training certification.

Fig. 4: Microcredentials best adress the reported requirements:



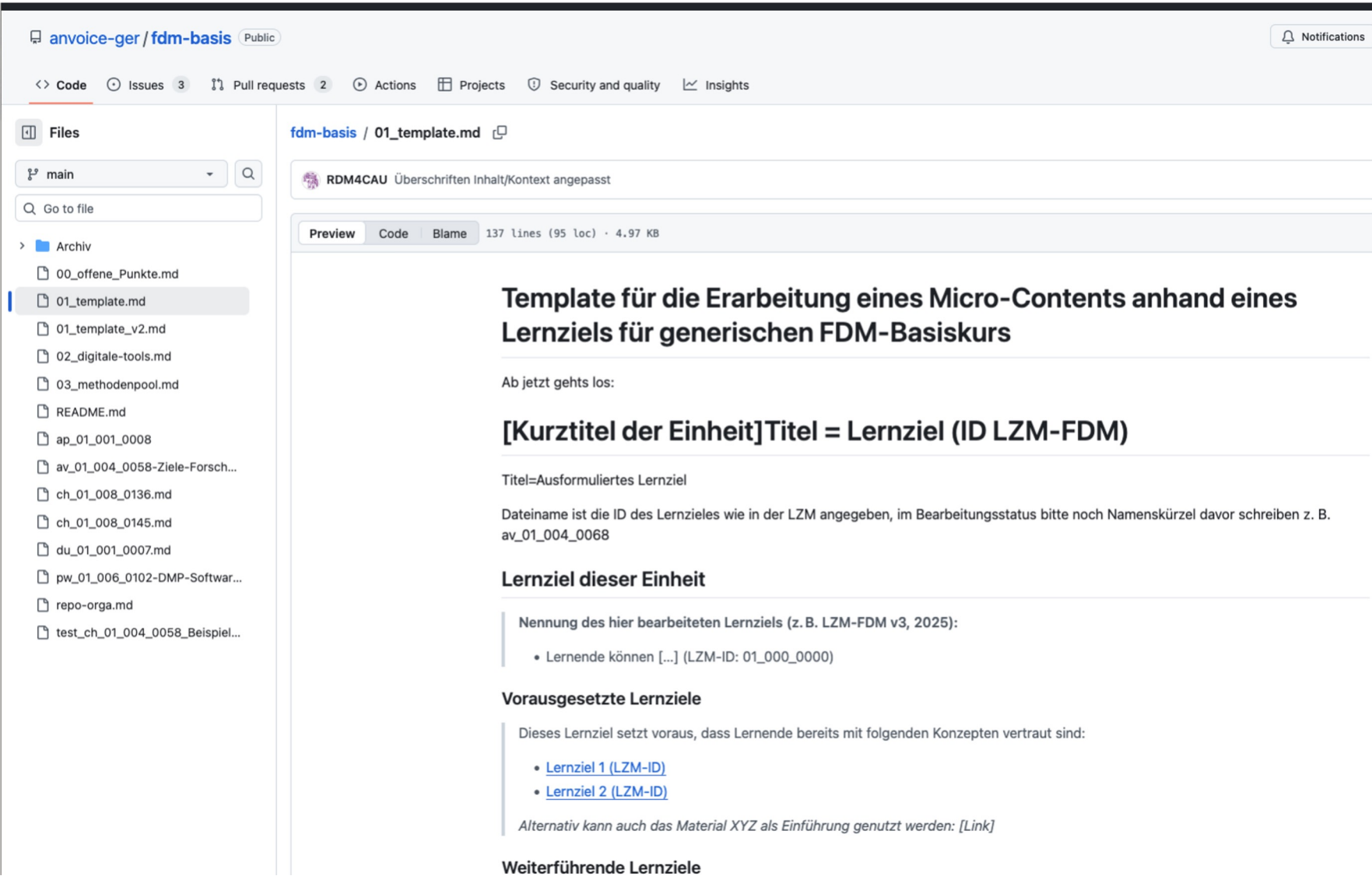
- Microcredentials are not a contradiction to developing new certification courses or further certification option
 - they are part of the path and prepare for further option
 - they are the steps that can be taken by the community
- Microcredentials are one way in which higher education institutes can contribute to knowledge transfer and
- are a way to establish the NFDI as a seal of quality

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Objective: Harmonising RDM training



ASSURED training is based on a flexible, modular approach catering to the differing needs of those involved in the wide landscape of research data.

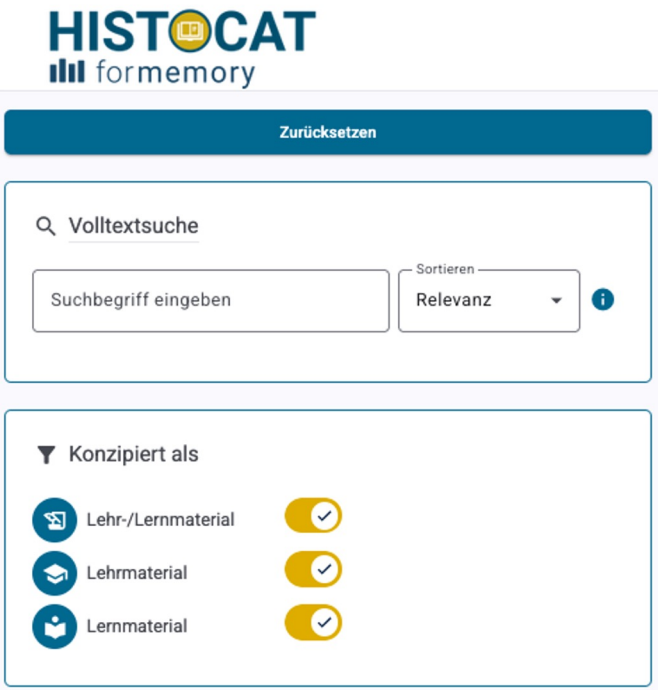
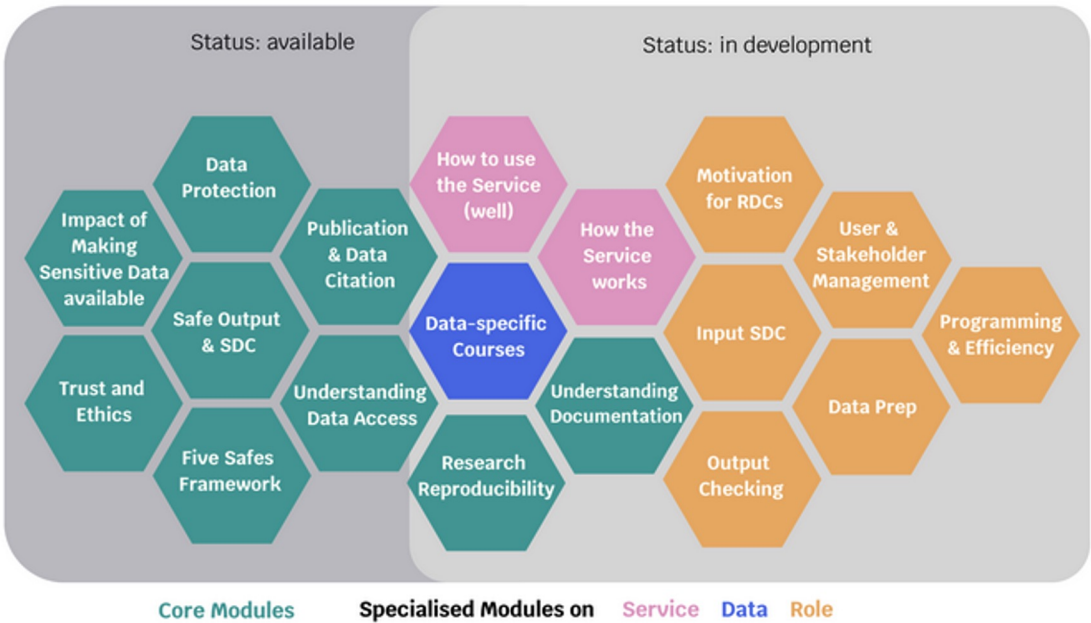


Fig. 5: Heterogenous landscape of (discipline-specific) RDM training offers

Call for action - Reflect and report

see: Bock & Kneib, 2025

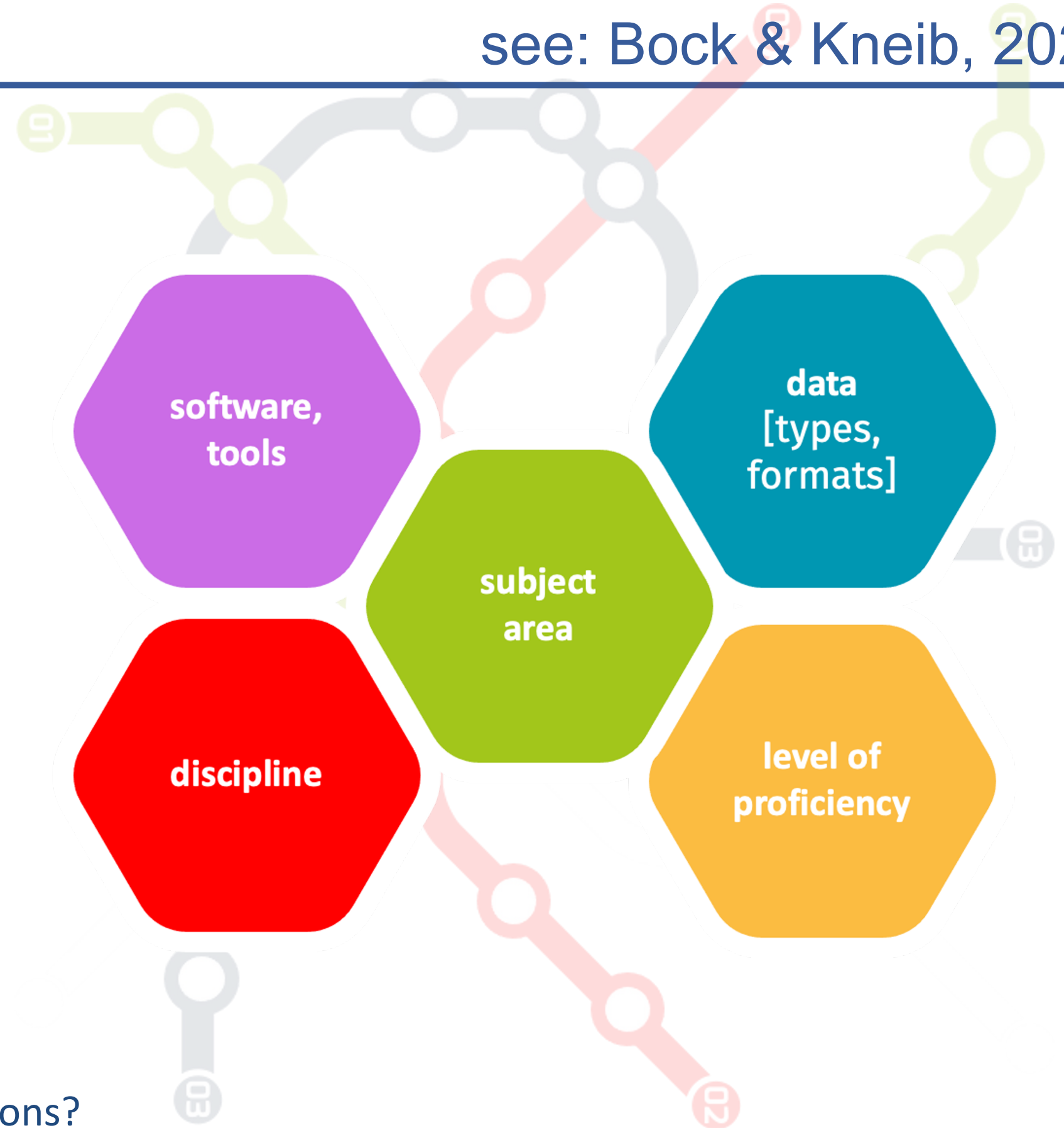
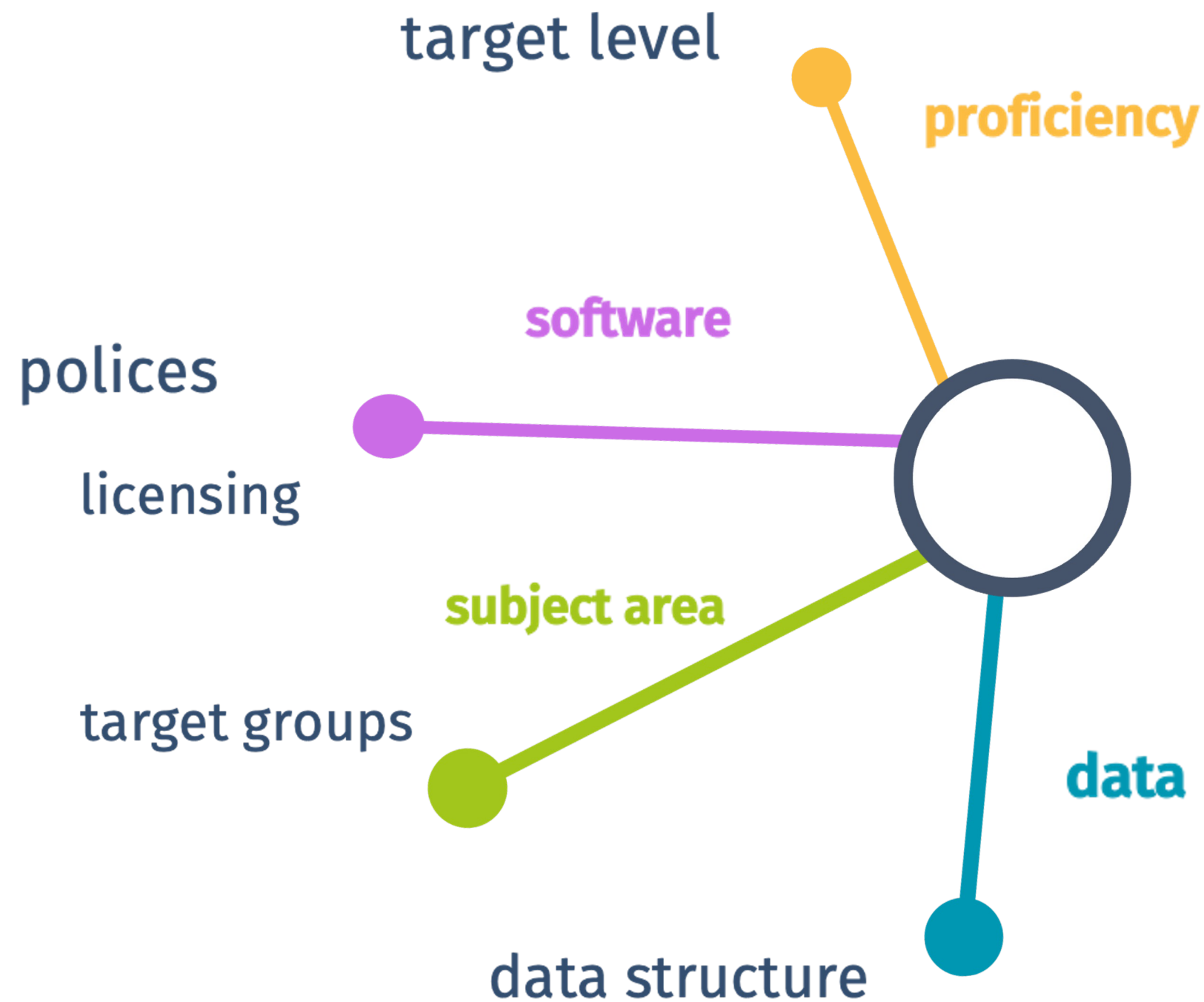


Fig. 6: Where does it need discipline specific adaptations?

Call for action – EduTrain objectives

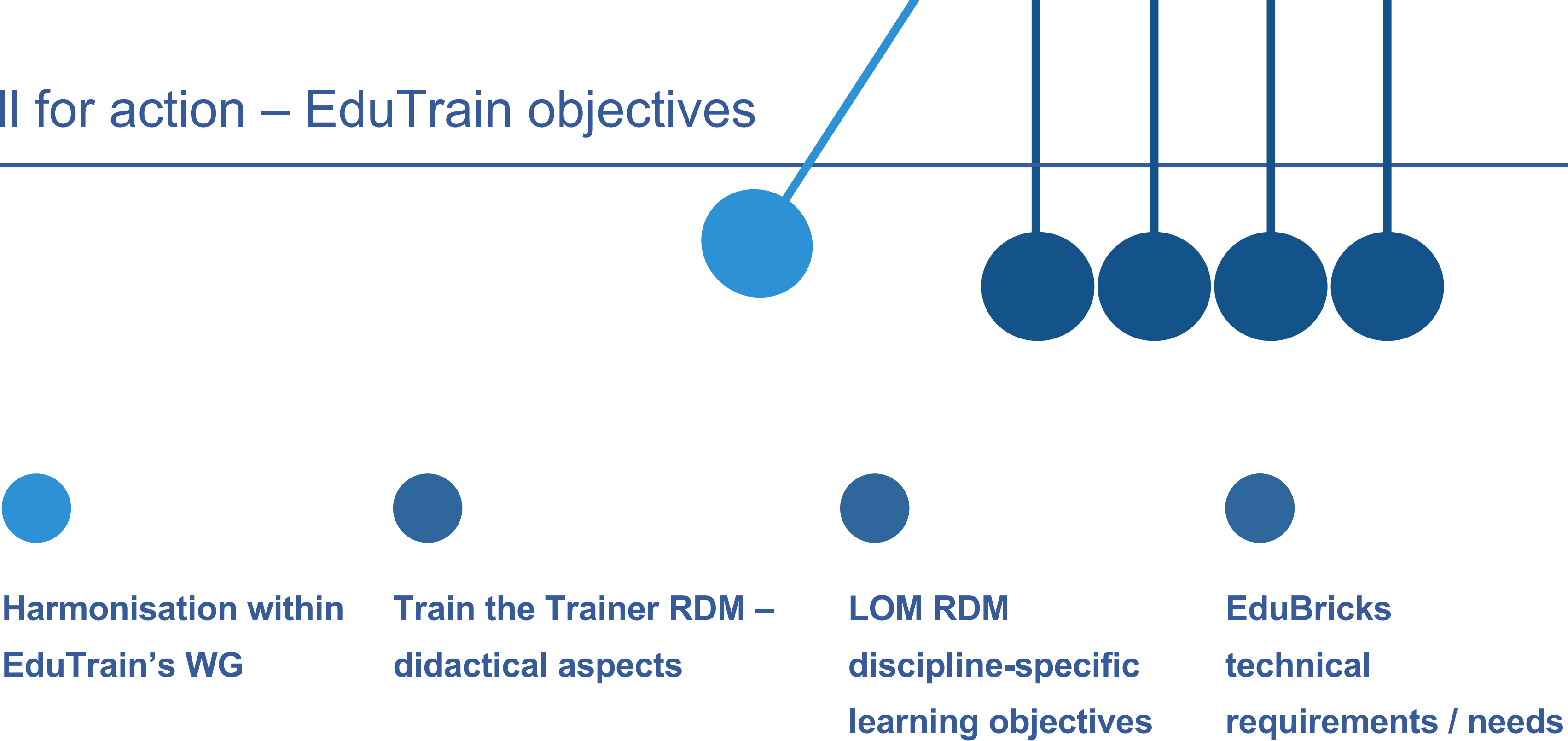


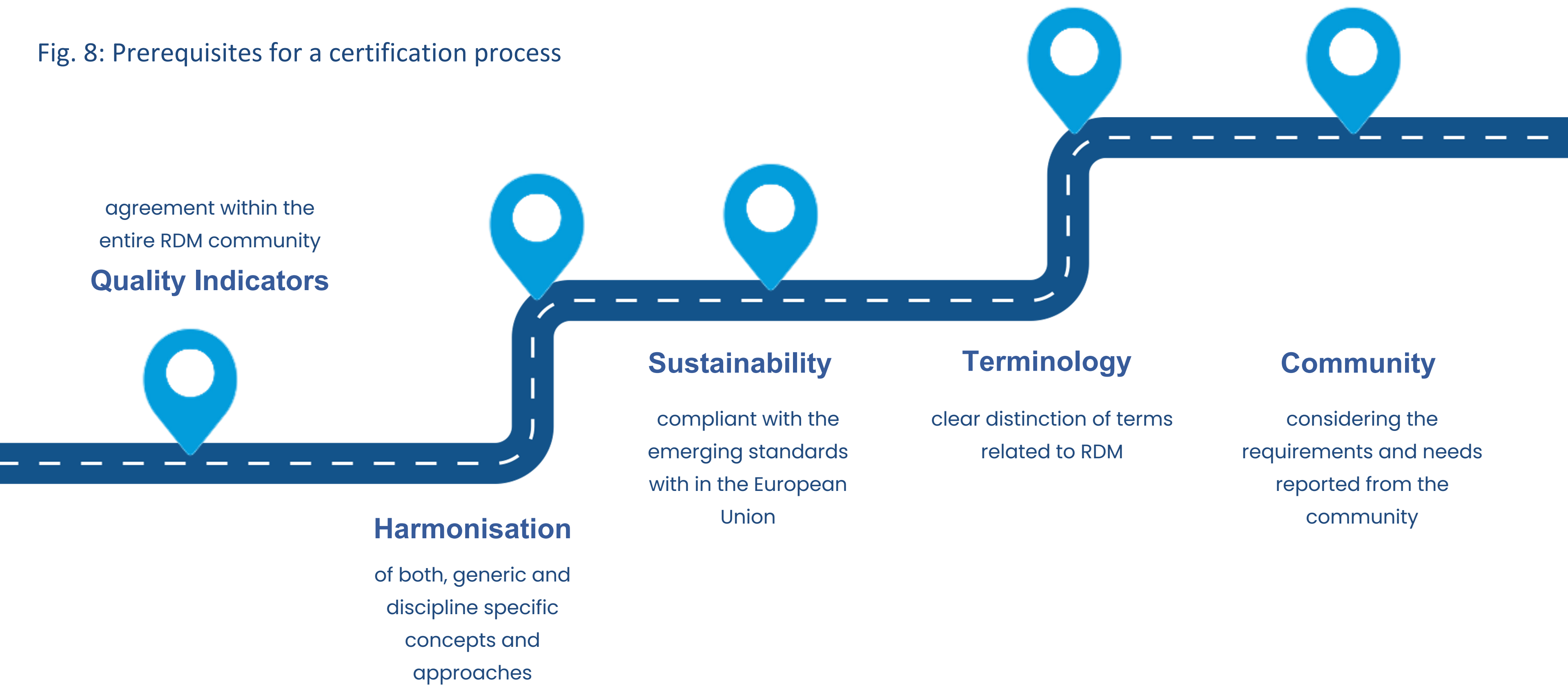
Fig. 7: Where does it need discipline specific adaption?

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Fig. 8: Prerequisites for a certification process



Outlook: Connectability & Applicability

QUADRIGA Data Literacy Framework v4

<https://doi.org/10.5281/zenodo.19470557>

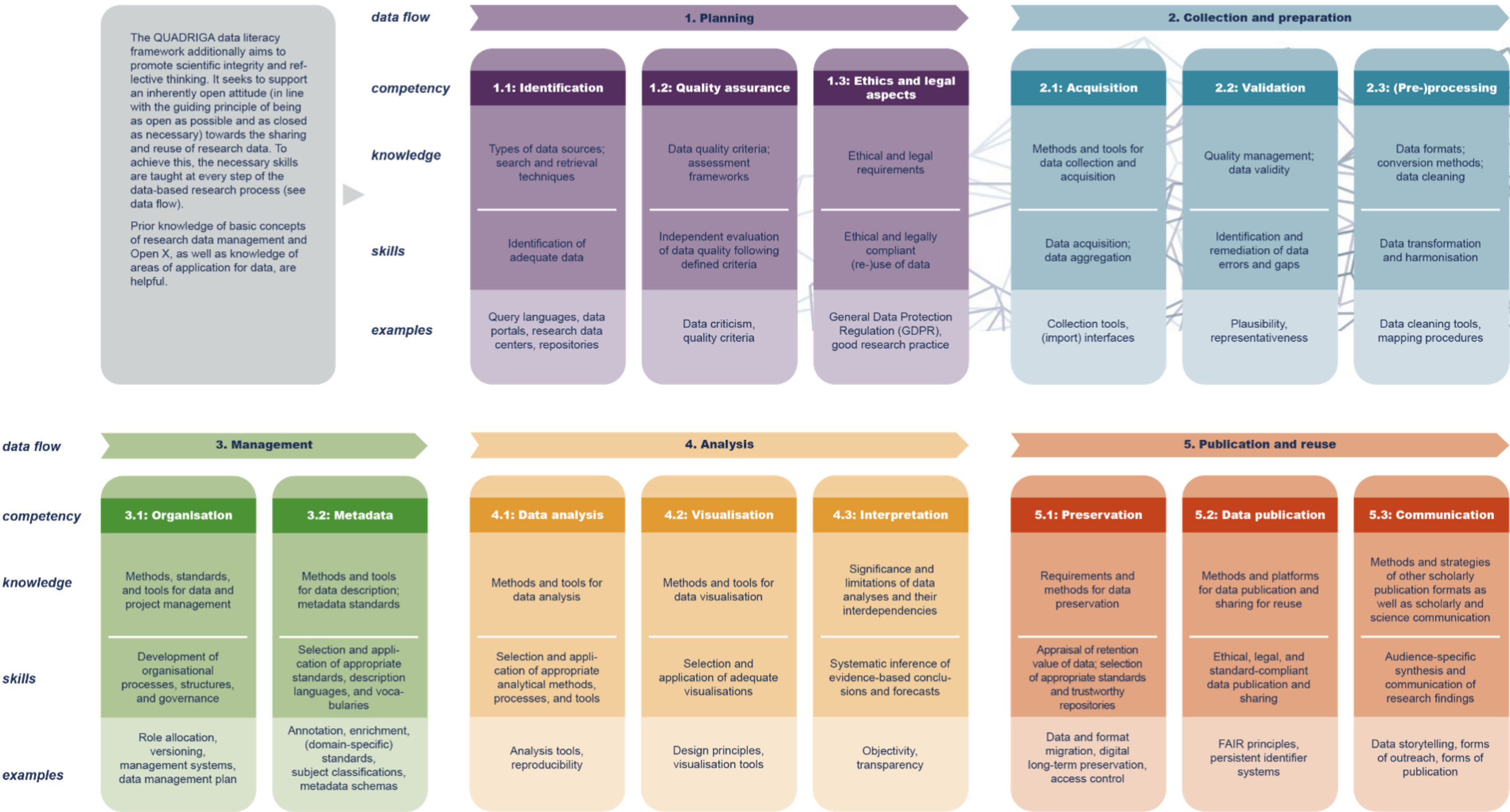
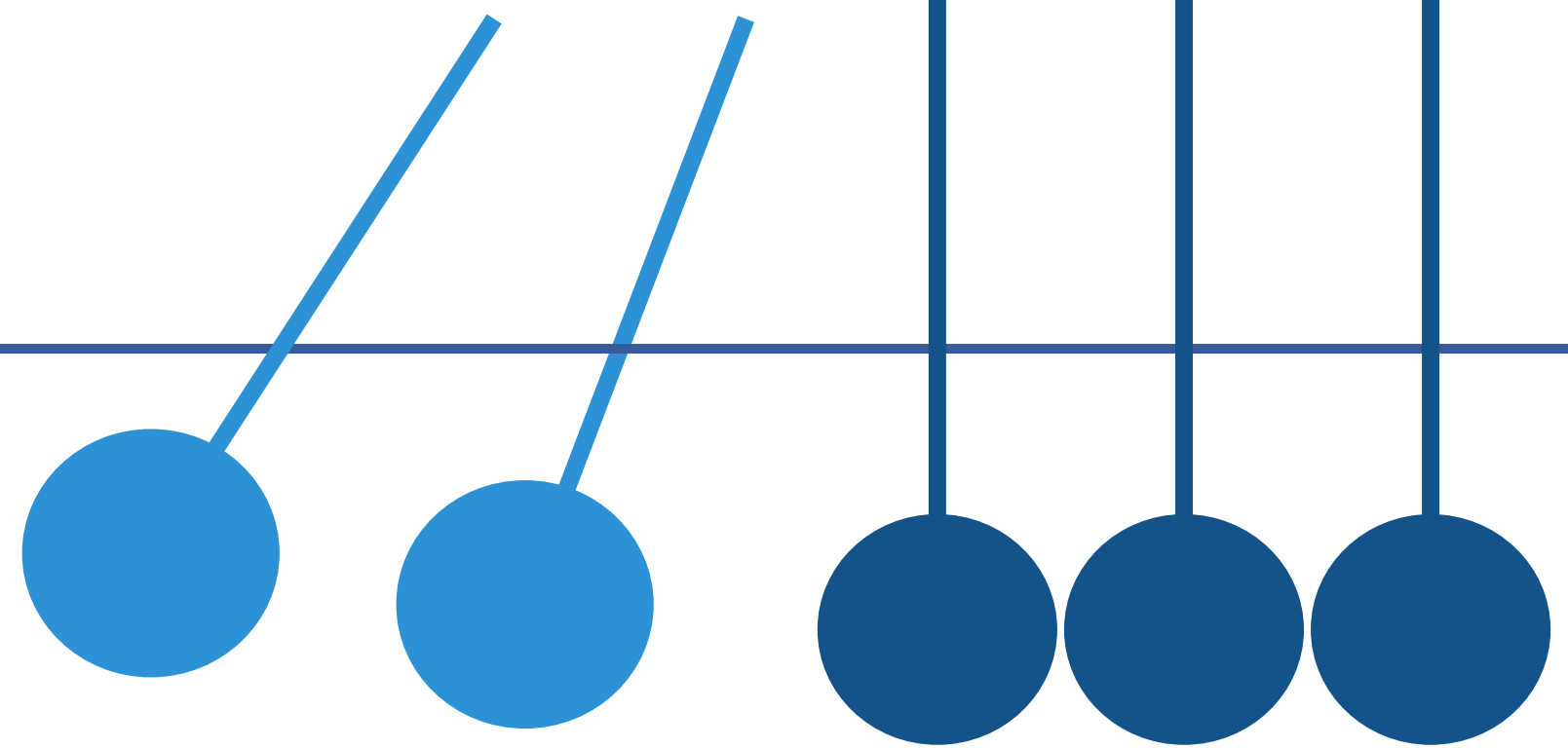


Fig. 9: Where does it need discipline specific adaptations?

MoDalia	DigiComp_v2_3_AT	DQR_vocabs
novice	elementar (grundlegend)	Niveau 1
novice	solide (grundlegend)	Niveau 2
advanced beginner	fundiert (selbstständig)	Niveau 3
advanced beginner	vertieft (selbstständig)	Niveau 4
competent	umfassend (fortgeschritten)	Niveau 5
proficient	vertieft (fortgeschritten)	Niveau 6
expert	strategisch (hoch spezialisiert)	Niveau 7
expert	innovativ (hoch spezialisiert)	Niveau 8

Fig. 10: creation of a common reference framework serving as a translation device between different qualification systems

Save the date – Stakeholder event



Save the date:

- **What: RDMTraining4NFDI Stakeholder event**
- **When:**
 - **Friday, November 6th 10-13**
 - **Friday, November 20th 10-13**

Thank you for your attention

Get in touch:

- Mail: rdmtraining4nfdi-orga@lists.nfdi.de (team)
- List: rdmtraining4nfdi@lists.nfdi.de (community)
- Mastodon: [RDMTraining4NFDI](#)



RDM Community outputs (samples)

- Bruhn, K.-C. and Schröer-Spang, S. 2026 'Einführung in Metadaten', Open Educational Resource. <https://nfdi4objects.github.io/oer-skript-metadaten/>
- NFDI4Objects Quarto-Template für Open Educational Ressourcen: Skript. <https://github.com/nfdi4objects/oer-template-skript>
- Schönau, S., Windeck, J., Gonzalez Ocanto, M., Wallace, D., Castro, L. J., Diederichs, K., & Schmitz, D. (2025). The NFDI DMP Template Framework (1-0-0). DOI: <https://doi.org/10.5281/zenodo.16737079>
- Schnaitter, H., Samoilova, E., & Islam, L. (2025, November 10). A Jupyter Book Template for Research-Based Open Educational Resources in Data Literacy. DOI: <https://doi.org/10.5281/zenodo.18477830>
- QUADRIGA Schema – Mapping Matrix: <https://quadriga-dk.github.io/quadriga-schema/v1.0.0/mapping-matrix.html>

RDM Community references (samples)

- Bruhn, K.-C. and Schröer-Spang, S. 2026 'Einführung in Metadaten', Open Educational Resource. <https://nfdi4objects.github.io/oer-skript-metadaten/>
- NFDI4Objects Quarto-Template für Open Educational Ressourcen: Skript. <https://github.com/nfdi4objects/oer-template-skript>
- Schönau, S., Windeck, J., Gonzalez Ocanto, M., Wallace, D., Castro, L. J., Diederichs, K., & Schmitz, D. (2025). The NFDI DMP Template Framework (1-0-0). DOI: <https://doi.org/10.5281/zenodo.16737079>
- Schnaitter, H., Samoilova, E., & Islam, L. (2025, November 10). A Jupyter Book Template for Research-Based Open Educational Resources in Data Literacy. DOI: <https://doi.org/10.5281/zenodo.18477830>
- QUADRIGA Schema – Mapping Matrix: <https://quadriga-dk.github.io/quadriga-schema/v1.0.0/mapping-matrix.html>

Publications (1/4)

Bock, S., Blümm, M., Murcia Serra, J., Habinger, S. G., & Petersen, B. (2026a). RDMTraining4NFDI – Report on the evaluation of certification types and processes (Version 2). DOI: <https://doi.org/10.5281/zenodo.19347894>.

Bock, S., Uebachs, M., Wohltmann, M., Vandendorpe, J., Blümm, M., Müller, R., Lindstaedt, B., Förstner, K. U., Zollitsch, L., & Piotrowski, S. (2026b). Documentation of the RDMTraining4NFDI Template – Collection for Training Materials (Version 1). DOI: <https://doi.org/10.5281/zenodo.19132287>.

Bock, S. & Kneib, P. (2025). Combining community concepts for reusable RDM training materials (Version 2a). DOI: <https://doi.org/10.5281/zenodo.17581243>.

Müller, R., Vandendorpe, J., Lindstädt, B., Blümm, M., & Förstner, K. (2024). Report on the Community Workshop for the RDMTraining4NFDI Proposal from July 2th, 2024. DOI: <https://doi.org/10.5281/zenodo.12772037>

Wohltmann, M., & Vandendorpe, J. (2026). Evaluation Report Hybrid Training Event. DOI: <https://doi.org/10.5281/zenodo.18330262>.

Publications (2/4)

Wohltmann, M., Bock, S., Vandendorpe, J., Müller, R., Blümm, M., Lindstaedt, B., & Förstner, K. U. (2026a). Report on Stakeholder Exchange. DOI: <https://doi.org/10.5281/zenodo.18330267>.

Wohltmann, M., Bock, S., Vandendorpe, J., Müller, R., Lindstaedt, B., Blümm, M., & Förstner, K. U. (2026b). RDMTraining4NFDI Proposal Integration Phase: Research Data Management Training for the German National Research Data Infrastructure. (Version 2) DOI: <https://doi.org/10.5281/zenodo.18428575>.

Wohltmann, M., & Bock, S. (2025). Developing a Cross-NFDI Training Service: Challenges, Findings, and Future Directions. DOI: <https://doi.org/10.5281/zenodo.17780654>.

Wohltmann, M., Bock, S., Uebachs, M., Blümm, M., Müller, R., Vandendorpe, J., Lindstaedt, B. & Förstner, K. U. (2025b). Stakeholder Meeting Report 2025. Research Data Management for NFDI. DOI: <https://zenodo.org/records/18708031>.

Publications (3/4)

Wohltmann, M., Müller, R., Bock, S., Vandendorpe, J., Marco, U., Lindstaedt, B., Blümm, M., & Förstner, K. U. (2025a).

Requirements Analysis Report 2025 Research Data Management Training for NFDI.

DOI: <https://doi.org/10.5281/zenodo.17737489>.

Vandendorpe, J. (2026). Concept of the RDMTraining4NFDI Hybrid Event on Research Data Management for NFDI Consortia. DOI:

<https://doi.org/10.5281/zenodo.19328263>

Publications (4/4)

Further publications of RDMTraining4NFDI can be found at our Zenodo community:

<https://zenodo.org/communities/rdmt4nfdi/>



RDMTraining4NFDI references

- Collection Demonstrator: <https://rdmt.services.base4nfdi.de/demonstrator/>
- RDMTraining4NFDI Website: <https://rdmt.services.base4nfdi.de/>

List of figures

Slide 09: for further information, please see: Wohltmann *et al.*, 2025a

Slide 18: for further information, please see: Bock *et al.*, 2026a

Slide 20: for further information, please see: Wohltmann *et al.*, 2025a

Slide 22: adapted from Bock, 2025 in Wohltmann & Bock, 2025, for further information please see: Bock *et al.*, 2026b

Slide 25: OER.net template (https://github.com/anvoice-ger/fdm-basis/blob/main/01_template.md) Hermes Hub (<https://hermes-hub.de/>), NFDI4Memory HistoCat (<https://histocat.4memory-dataliteracy.de/>) and BERD4NFDI Assured (<https://assured-training.org/trainings/>)

Slide 26: Bock and Kneib, 2025

Slide 29: Bock, 2025 in Wohltmann & Bock, 2025

Slide 30: Petras, V., Neuroth, H., Seltmann, M., Schnaitter, H., & Walter, P. (2025). QUADRIGA Datenkompetenzframework (3.3). DOI: <https://doi.org/10.5281/zenodo.15058057>